

# The Mining Journal

## AND COMMERCIAL GAZETTE.

No. 42.—Vol. II.]

LONDON: SATURDAY, JUNE 11, 1836.

[PRICE 7D.]

**WILLIAM TRENEY, Jun.,** Mine Agent and Share-Broker, from Redruth, Cornwall, begs to inform his friends, and the public in general, that he has the undersigned shares, with others on hand, for sale. All letters addressed to him, post-paid, 50, Threadneedle-street, London, shall meet with prompt attention.

1-384th in Treneyan.  
25 Wicklow Mines.  
20 East Cornwall.  
20 Wherry Mine.  
20 Tincroft.  
25 Treleigh Consols.  
30 Wheal Gilbert.  
20 West Wheal Brothers.  
1-128th South Wheal Basset.  
1-128th Wheal Union.  
2-240 Wheal Ellen.  
1-128th East Pool.  
1-160th Seton.  
1-180th Marazion Mine.  
1-128th Wheal Kitty.  
20 Harmony and Montague.  
4 East Bellation.  
25 East Wheal Strawberry.  
1-6th East Levant.  
25 South Polgoath.  
20 Wheal Osborne.  
1-116th Providence Mines.  
30 Redruth United.  
40 British Silver and Lead.  
1-200th Mold Mine.  
10 Comb Martin.  
30 West Trevaun.  
1-128th Wheal Bands.  
1-7th Wheal Budwick.  
25 Great Wheal Prosper.

**WELSH UMBRE AND OCHRE ON SALE.**—Apply to Messrs. DYMOND and Co., 146, HOLBORN-BARR, where samples are left for inspection; application may also be made to Mr. JAMES JONES, Caernarvon.

**JOHN GREAVES, Stock and Share-broker,** begs to inform his Friends and the Public, that in consequence of the inconvenience of his former office, he has been induced to REMOVE his Establishment from No. 9, Exchange-alley (which he has occupied so many years), to more eligible premises, 29, CHAPEL-STREET, between Tarrion-buildings and Oldhall-street, opposite the entrance to the Exchange, Manchester, Where, he takes this opportunity to state, that it is his wish and determination to transact the business entrusted to him as efficiently as possible, and to continue to devote his exclusive attention, as a Commission Broker, to the Purchase and Sale of Shares, more particularly in Joint Stock Banks and Railways, he, therefore, solicits the favour of their orders, assuring them that every possible attention will be given to the interests of those who may avail themselves of his services here or in the London market.

**CORNWALL GREAT UNITED MINES.**—Notice is hereby given to the Shareholders in this Company, that the payment of the second instalment of £3 per share, originally fixed for the 2nd April and postponed, is now called for, payable within thirty days from the date hereof, to the bankers of the Company, Messrs. Masterman, Peters, Milner and Co. By order of the Directors, T. V. WILLIAMS, Secretary. No. 57, Old Broad-street, June 4.

**COLOMBIAN MINING ASSOCIATION.**—Notice is hereby given, that a GENERAL MEETING of the Proprietors of this Association will be held at the Office of the Association, on THURSDAY, the 16th day of June instant, at One o'clock precisely, in pursuance of the resolution passed at the Special General Meeting of the Proprietors on the 7th of April last. JOHN CHAPMAN, Secretary. 3, Freeman's-court, Cornhill, June 1.

**EAST WHEAL STRAWBERRY MINING COMPANY.**—Notice is hereby given, that the Annual General Meeting of the Shareholders of this Company will be held at the London Tavern, on Wednesday, 29th June instant, at one o'clock. The chair will be taken at one o'clock precisely. By order of the Directors, HENRY THOMAS, Secretary. 1, Cushion-court, Old Broad-street, June 7.

**PERRAN CONSOLIDATED MINING COMPANY.**—Notice is hereby given, that the Annual General Meeting of the Shareholders of this Company will be held at the London Tavern, on Wednesday, 29th June instant, at one o'clock. The chair will be taken at two o'clock precisely. By order of the Directors, HENRY THOMAS, Secretary. 1, Cushion-court, Old Broad-street, June 7.

**REDMOOR CONSOLIDATED MINING COMPANY.**—Notice is hereby given, that the Annual General Meeting of the Shareholders of this Company will be held at the London Tavern, on Wednesday, 6th July next, at twelve for one o'clock. By order of the Directors, RICHARD THOMAS, Secretary. 1, Cushion-court, Old Broad-street, June 11.

**ST DOMINICK MINING COMPANY**  
In 6,000 shares of £4 each. Deposit £1 per share.  
DIRECTORS: John Gould, Esq., Henry S. Hooper, Esq., Alex. Porter Grange, Esq., Thomas Boxer, Esq., BANKERS—Messrs. Spooner, Attwood, and Co., Solicitors—J. H. Anderson, Esq., 3, Clerk-lane. SUPERINTENDENT AT THE MINES—Mr. Josiah H. Hinchins.  
Formed for the purpose of Working two valuable Sets on the Western Bank of the Tamar, a continuation of the celebrated South Hoo Lead and Silver Lodes, and also of two highly promising Copper Lodes. Applications for shares to be made, post paid, to the Solicitor in London; and to Messrs. Harris, Roskew, and Co., Naval Bank, Plymouth, of whom Prospectuses may be had.

**DARTMOOR CONSOLIDATED TIN MINES.**—Capital £37,500, in 7500 shares, of £5 each. Deposit £3 per share. 2500 shares, out of the 7500 shares, are to be taken by the Provisional Committee, which consists of the following gentlemen:—Benjamin Cole, Esq., J. H. Denoon, Esq., C. Johnston, Esq., James Heygate, Esq., William Hall, Esq., J. H. Longdon, Esq., Robert Seaton, Esq., Robert Sutton, Esq., Robert Sutton, Jun., Esq., James Sutton, Esq., Thomas Windus, Esq.  
BANKERS IN LONDON—Messrs. Barnett, Hoare, and Co., Do. in TAVISTOCK—Messrs. Gill, Randall, and Co.  
Prospectuses and forms of application for shares may be obtained at the office of Mr. F. A. Helps, 9, Finch-lane, Cornhill, where plans of the mines and samples of the ores may be seen.

**WHEAL ROGER MINE.**—Notice is hereby given to the Adventurers in the above-named Mine, that a CALL of FIVE SHILLINGS per share is made, and to be paid on or before the 25th of JUNE next. JOHN BALL SMITH, FRANCIS R. PRICE, JOHN MORRIS, Directors.  
Dated Mercurio, the 28th day of May, 1836.

**WEST WHEAL FRIENDSHIP CONSOLS AND WHEAL MARTHA CONSOLS.**—Notice is hereby given, that all Persons having any claims on West Wheal Friendship Consols, situated in the Parishes of South Sydenham and Lamerton, Devon, and Wheal Martha Consols, in the parish of Stokeclimsland, Cornwall, are requested to attend at the NEW INN, Callington, on TUESDAY, the 14th of JUNE next, by Twelve o'clock in the Forenoon, that their respective accounts may be examined and paid. By Order of the Adventurers, WALTER HOCKIN, Solicitor, Callington. Dated 26th May, 1836.

**UPTON AND ROBERTS' PATENT SAFETY LAMP.**—The perfect safety of this Lamp has been proved by the Chemist, the Miner, and a Select Committee of the House of Commons, by tests which neither the Davy Lamp, nor any other patented Safety Lamp, could sustain; it can, therefore, be recommended to the Miner as a protection, under all circumstances—there are no exceptions. To the scientific, it is only necessary to state, that from its peculiar construction, the products of its combustion secure its safety—to the working miner, that it never fills with flame, and affords the light of the Davy Lamp. It is, therefore, hoped that life will no longer be exposed to a dreadful, and now unnecessary, peril, by the use of a Lamp, which neither affords the requisite protection nor sufficient light for Mining operations.  
Sold by W. Upton and Co., Queen-street, Cheapside, London; Mr. ROBERT WATSON, High-bridge, Newcastle-on-Tyne; and also by Messrs. TIMOTHY SMITH and Sons, Birmingham, who supply the trade.

**WEST INDIA AGRICULTURAL COMPANY.**—In consequence of the vast importance of this undertaking, and the very great advantages which are likely to accrue from it, it has been deemed advisable to increase the Capital from £500,000 to £1,000,000, to be raised in 20,000 shares of £50 each, with a deposit of £2 per share. The Provisional Committee are preparing a more detailed Prospectus, which will be ready in a few days. In the mean time, applications for the additional shares will be received by Messrs. Vaux and Farnell, Solicitors, Redding-row; or by the Secretary, at the offices of the Company, 17, Ironmonger-lane, Cheapside (if by letter, post paid). June 2. CHARLES BALL, Secretary.

### THE MINING REVIEW.

The forthcoming number of this work will unavoidably be delayed until the 15th instant, in consequence of the numerous Engravings required for illustrating several Original Papers, the publication of the Mining Journal (directing its attention to the Mining Review) having determined the Editor to render the MINING REVIEW more completely devoted to Science, and so far as is practicable, to render it more valuable by numerous Engravings and Woodcuts.

Contents of No. VII. of the MINING REVIEW.  
ORIGINAL COMMUNICATIONS.—On Mining Companies—Descriptive Notice of the Consolidated and United Mines—Comparative View of Celebrated Mines in Europe and America—Parallel between the British and Continental Methods of Copper Smelting—On the Geological Structure of Rocks, and on the Separation of Gold from the Ore at Tromo, in Brazil—On the System of Amalgamation pursued at the Hacienda of San Pedro de Indio, in Capatzen—Address.—MISCELLANEA.—NOTES OF RECENT PRACTICES.—NEW COMPANIES FOR WORKING MINES.—PROCEEDINGS OF PUBLIC COMPANIES.—CORRESPONDENCE FROM MINING DISTRICTS.—APPENDIX.

THE MINING JOURNAL AND COMMERCIAL GAZETTE.  
The only Newspaper exclusively devoted to Geology, Mineralogy, and Metallurgy; combining therewith Reports of the Proceedings of Public Companies, Correspondence from the Mining Districts, Sales of Ores, Prices of Shares, Mines, Railways, Canals, &c., with Parliamentary Summary, London Gazette, and much original and interesting Scientific Intelligence, &c., is published every Saturday, and may be had of all newsmen in town and country. Office, 12, Gough-square, Fleet-street, London.

### BOROUGH OF ST MARYLEBONE BANK, ON THE SCOTCH SYSTEM.

Capital £1,000,000, in 40,000 shares of £25 each. Deposit £1 per share.  
DIRECTORS: Thomas Henry Coates, Esq., M.P., Sir Francis C. Knowles, Bart., F.R.S., Hans Bank, Esq., The Hon. Leicester Stanhope, Edmund Clive, Esq., Edward Perkins, Esq., Norton Balmanno, Esq., Thomas Berrell, Esq.  
With power to add to their number.  
Applications for prospectuses and the remaining shares to be made in writing, post free, to Alfred Robinson, Esq., 17, Orchard-street, Portman-square.

### JAMAICA COMPANY.

Capital £1,000,000, in 10,000 shares of £100 each.  
For settling and bringing into cultivation, by free labour, European as well as Native, the fertile and healthy districts of the interior of Jamaica, and the encouragement of immigration into that important colony.  
PROVISIONAL COMMITTEE: The Most Noble the Marquis of Cornwallis, Jamaica, William Burge, Esq., K.C., agent for Jamaica, The Right Hon. Viscount St. Vincent, William Miller, Esq., late of Jamaica, The Right Hon. Lord Seaford, Edmund Mitchell, Esq., Sir Alexander Grant, Bart., Robert Linton, Esq., Horace Twiss, Esq., K.C., M.P., late Under Sec. of State for the Colonies, James Huby, Esq.  
Applications for shares may be made to Sir John Lubbock, Forster, and Co., the bankers of the Company, or to the Secretary, at the temporary offices of the Company, No. 77, Cornhill, where information as to the estimates and calculations may be obtained.

### LOCOMOTIVE ENGINE AND RAILWAY CARRIAGE COMPANY.

Applications for shares in the above Company will continue to be received at the Company's office, 16, Change-alley, Cornhill, until the 21st instant. W. G. WILLIAMS, Sec.

### NORTHAMPTON UNION COAL AND MINING COMPANY.

Subscribed capital £16,000, in 800 shares of £20 each.  
The great price of coals, and the advance on that very essential and absolutely necessary article in housekeeping, &c., induced several persons to form a Provisional Committee, who sent a deputation to the Northamptonshire Coalfield, to inquire into the coal trade, and to ascertain the extent of the coalfield, and the quantity of coal they have done, and are of opinion, that coals are to be found within an area of a half of the town of Northampton.  
The result of the investigation and the favourable opinion of the colliery, led to an application being made to the owner of the land, who at once agreed with the Provisional Committee for the site, on such terms as must prove highly beneficial and advantageous to the Shareholders, as well as to the inhabitants of Northampton and its neighbourhood.  
A great feature in this undertaking is, that coals will be supplied to the inhabitants of Northampton and its neighbourhood, and at one half the present price of coals; and, inasmuch as the river Nine or Non is very near, and the projected South Midland Railway will run close by the spot, coals may be sent from, instead of being brought to, Northampton, and forwarded to London and other places, and delivered at half the present prices, and yet secure to the Shareholders an immense profit on their shares.  
To carry this and to Northampton particularly, most important object into effect, the Provisional Committee propose to form a company of Shareholders, with a capital of £16,000, to be divided into 800 shares of £20 each. That a deposit of 10s. per share be paid by each person to the Northamptonshire Banking Company, on being admitted a Shareholder; and that no further call shall be made until the Committee of Management shall have expended the whole thereof, (in the necessary work of sinking shafts, &c., and carrying the proposed plan into execution,) within £500, when the Committee are to be at liberty to make a call of 10s. per share more; of which call fourteen days' notice shall be given, and so on in like manner until the calls (if necessary) shall amount to £3 per share; but in no case are the Shareholders to be called upon to pay more than £2 per share, until a meeting of the Shareholders shall have been called by public advertisement, at least fourteen days before the day of meeting, and a majority of the Shareholders present shall consent to a further call beyond that sum, and then such further call shall be made as the majority of the Shareholders present shall determine and fix upon; but it is most confidently anticipated that the sum of £3 per share will be amply sufficient to guard against all and every contingency that may arise in sinking the shafts, &c., and carrying the proposed plan and works into full operation.  
That the Company be considered formed when one-half of the shares are taken; and a meeting of the Shareholders held, to appoint five persons a Committee of Management, (of which committee the owner of the land is to be one,) who shall be at liberty to commence operations immediately; but no Shareholder of less than twenty shares is to be eligible to be one of the committee.  
That so soon as the Company is formed, a Deed of Settlement shall be immediately prepared, upon the following conditions: that is to say, the owner of the land, his heirs, or assigns, to have and receive one-fifth share of all the coals, or the money for which the same shall be sold, the price per ton at which the same are to be sold being fixed by the Committee of Management; the remaining four-fifths to go to and amongst the Shareholders, after deducting all necessary expenses for rent, &c., which is not to exceed £5 per acre for the surface of the land occupied by the Committee of Management.  
The owner to receive and be entitled to one-fifth of all mines, minerals, ores, &c., that may be discovered, and which may turn to a profit, the rest to go amongst the Shareholders on the terms above stated.  
That the Deed shall contain in every respect all necessary and proper provisions for the efficient management of the affairs of the Company, as well for the protection of the Shareholders as of the owner of the land; and to be perused and settled by the solicitor, agent, or counsel of the Shareholders, and the solicitor, agent, or counsel of the owner.  
According to a moderate estimate, full 150 per cent. per annum will be realised on coals being found to the Shareholders, independent of the advantages derived from the consumption of gas, lime, bread, malt, beer, &c., which will all be much reduced in price in consequence, and the consumers of coal generally be greatly benefited; and, indeed, this undertaking is one that presents greater advantages than any company that has ever been projected in the county of Northampton.

OPINION OF THE COLLIERIES.  
"We, James Stanfield and Jonas Linford, both of Tipton, in the county of Stafford, colliers, having examined the strata of stone, &c., on fifty acres of land near Northampton, are of opinion that as the strata are exactly similar to the strata in Staffordshire, there are coals below; and, indeed, we do not entertain a doubt but there are as good coals to be obtained as any in Staffordshire. We have found a stratum of good iron stone, which is as valuable as coals."  
Witness our hands this 26th day of May, 1836.  
"JAMES STANFIELD,"  
"JONAS LINFORD."

The Committee also have the satisfaction of announcing, that Mr. Stephen Granger Whitehouse, of Northampton, who was brought up a collier, and has had great experience in the coal trade, has engaged to take 100 shares.  
Applications for shares to be made to James Samuel Jenkins, Esq., Resident Director of the Northamptonshire Banking Company; Mr. Alderman Freeman, Market-square; or Mr. George Cooke, solicitor, Northampton; or to the following share-brokers:—Mr. Edmunds, 9, Change-alley, London; Mr. Scott, Birmingham; Messrs. Riddalls, Leeds; Mr. Holt, Manchester; Mr. Charnock, Wakefield; or to Mr. Coglan, Liverpool; of whom prospectuses may be had. All letters to be post paid.—P.S. Specimens of the ironstone may be seen at Mr. G. Cooke's office.  
GEORGE COOKE, Solicitor to the Provisional Committee.  
Wood-street, Northampton, May 26.

Applications, in writing, to be made according to the following form:—  
NORTHAMPTON UNION COAL AND MINING COMPANY.  
Gentlemen,—I request that you will reserve and secure me shares in this Company, and I undertake to pay the deposit of two shillings per share, and all such calls as shall be made by the Committee of Management, as mentioned in the prospectus.

### BLAENAVON IRON AND COAL COMPANY.

Capital £400,000, to be raised in shares of £20 each. Deposit £10 per share.  
DIRECTORS: James Ashwell, Esq., David Lewis, Esq., M.P., Pascoe St. Leger Grenfell, Esq., John Masterman, Jun., Esq., Thomas Hill, Esq., W. G. Lewis, Esq., Robert William Keimard, Esq., George Theodore Thomas, Esq., Francis Wardlaw, Esq.  
BANKERS—Sir James Esdaile and Co.; Messrs. Masterman, Peters, and Co.  
SOLICITORS—Messrs. Hall, Thompson, and Sewell, Salters-hall.

The reputation of the Blaenavon Iron, and the well-known success of these Works, during a period of forty years, entitles for this undertaking the character of a legitimate and lucrative investment.  
An investigation of the books during a period of extreme depression, and a calculation based upon the prices of iron for fifteen years (since 1821), justify a confident expectation of annual dividends of ten per cent.; but if the prosperity of the iron trade continues, a much larger dividend will be realised.  
The Shareholders will be entitled to the profits from Midsummer next, so that a dividend may be expected at Christmas, 1836.  
Applications for shares in writing (postage paid) will be received by James Ashwell, Esq., at the office of the Company, 4, Adam's-court, Broad-street, where prospectuses, with additional information, may be obtained.

### HAYLE AND PENZANCE RAILWAY COMPANY.

Capital £500,000, in 10,000 shares, at £50 each. Deposit £1 per share.  
Eight thousand shares having been already applied for, applications for the remaining 7000 will not be received after the 1st day of July next, when the allotment of shares will take place.  
Applications for shares must be made either to Messrs. Bennett and Paul, solicitors, 30, Barbican, London; Mr. Thomas Hannan, share-broker, 41, Cherry-street, Birmingham; Mr. W. H. Land, share-broker, Bristol; Mr. V. Trevelyan, share-broker, Redruth; or to Mr. R. E. Tiptot, solicitor, Marazion, Cornwall.  
June 4.

### ST. GEORGE'S HARBOUR AND RAILWAY COMPANY.

Capital £1,000,000, in shares of £100 each. Deposit £1 per share.  
DIRECTORS: Richard Ould, Esq., Thomas Atwood, Esq., M.P., Captain James Farnham, John Kiddell, Esq., John Farnham, Esq., Thomas Martin, Esq., M.P., J. F. Froude, Esq., William Murray, Esq., Civil Eng., Robert Grimes, Esq., Captain J. McArthur Low, R.N., Thomas Hewson, Esq., M.P., John Merry, Esq., Alderman Hunter, George Parkin, Esq., Alderman Humphrey, Esq., M.P., Joshua Schofield, Esq., M.P., William Jones, Esq., J. H. Walden, Esq., V. C. Kemble, Esq., J. C. Webster, Esq.  
With power to add to their number.  
SOLICITORS: John Macdonald, Jun., Esq., R. Kennard, Esq., J. Woolley, Esq., London—Messrs. Masterman, Peters, and Co., Birmingham—The Birmingham Banking Company, Liverpool and Manchester—Manchester and Liverpool District Bank, Birmingham from the Bankers—William Gidley, Esq., Birmingham from the Bankers—Messrs. Galloway and Son, Solicitors—Mr. Robert Ould and Mr. Benjamin Bailey.  
BANKERS—Messrs. Wm. Worsley, Keightley, and Parkin, 41, Chancery-lane, London; Mr. Thomas S. Smith, Liverpool.

The object of this Company is to form an Asylum and Commercial Harbour between the great and little Orme's Heads on the coast of North Wales, communicating by a railway through Flint, Chester, &c., with the Grand Junction Railway between Liverpool and Birmingham.  
By means of a Pier, extending from the great Orme's Head, made at a reasonable cost, the material being on the spot, a most magnificent and spacious harbour will be formed, which, as a comparatively free commercial port, will possess immense advantages, besides providing the extensive and dangerous approach to the Liverpool Harbour for the shipping of Liverpool, &c., will also be of inestimable value, in the situation, depth of water, and safe anchorage, vessels of the largest tonnage, in all weather, and at any time of the year, can be in and out of the harbour with perfect safety.  
It will be the most direct communication between Dublin and London, and must eventually become the Irish and American packet station.  
Applications for shares to be made (post paid) at the Company's offices, 1, Capthall-buildings, where prospectuses may be had.

### BRITISH MINING INVESTMENT ASSOCIATION.

Capital £100,000, in 5000 shares of £20 each.  
DIRECTORS: John Spurgeon, Esq., M.D., Chairman, O. T. Alger, Esq., G. B. Robinson, Esq., William Vice, Esq., William Mitchell, Jun., Esq., PHRENEAN—Mr. Higgs, SECRETARY IN LONDON—J. S. Menzies, Esq., CASHIER IN CORNWALL—J. Trevelyan, Esq., TRURO.  
BANKERS—Messrs. Francis and Co., London; Messrs. Twiss, Williams, and Co., Truro; Messrs. Batten, Carne, and Co., Penzance.

The experience and observation of many years in Mining affairs have led to the conviction that the purchase of shares in Mines paying, or commencing to pay, *bona fide* dividends of profit, is a safe and advantageous investment. Purchases so effected being by the original adventurers, without the risk of the Mine turning out a failure, and also affording afterwards the opportunity, by a judicious sale of such shares, of securing a considerable profit, without hazarding the uncertainty of its lasting prosperity.

A capital laid out on the above principle, would command a high rate of interest from the commencement of its investment, which interest would, after paying a considerable per centage on the original advance, allow of a certain rate of deduction, to form a fund applicable to further purchases, and thereby neutralise the fluctuating character of Mining property.

A capital of £100,000 is proposed to be raised by 5000 scrip shares of £20 each, to be advanced by an immediate deposit of £5 on each share, and afterwards by instalments not exceeding £2 10s. on each share, to be called for once in three months, if necessary.

The Association to be under the management of Directors in London and Cornwall, according to the following general rules:—

1. The Directors are empowered, as the Deposits on the shares of the Association are paid up, to lay out the same to the best advantage in the purchase of shares in Tin, Copper, Lead, Silver, and other Mines, in Great Britain, that are yielding, or in their judgment are about to yield forthwith *bona fide* dividends of profit; and they are also empowered to sell any of the same again, as they may consider advisable. But no purchase or sale of shares is to be made without a report of the state and prospects of the Mine, drawn up by one or more experienced Mine agents, being first submitted to the Directors; and all transfer of shares to be in the names of one Cornish and two London directors.  
2. The purchase of all shares by the Association to be by tender.  
3. All sums of money, transfers of Mine shares, and other securities belonging to the Association, will be deposited at the Bankers in London, in the joint names of the Directors; and all cheques on the Bankers, as well as all orders for drawing the transfers of shares or securities so deposited with them, shall be signed by three Directors.  
4. The Directors will distribute to the Shareholders their respective shares of the accruing profits, once in six months, after deducting the amount of the necessary current expenses, and any sum not exceeding thirty per cent. from such profits, for the formation of an available purchasing Fund, over and above the capital originally subscribed.  
5. The qualification of a Director shall be twenty shares, which must be deposited at the Bankers. Any Director ceasing to hold his qualification, or going to reside beyond seas, or otherwise disqualified according to the By-laws of the Association, shall cease to be a Director, and the remaining Directors will be empowered to fill up the vacancy, so or otherwise occurring.  
6. The Directors will meet once a fortnight, or oftener, if necessary, to transact the business of the Association, and to conduct its affairs with the most rigid economy, with a view to the most profitable results; but they will not receive any remuneration for their services, until the profits of the Association shall fairly justify their doing so.  
7. The accounts of the association will be duly audited, and a report of its affairs drawn up every six months, and deposited for the inspection of the Shareholders, at the offices of the Association in London and at Truro.  
8. The Directors will give one month's notice of further instalments being required, in the Mining Journal, the Times, Morning Chronicle, and in the Truro newspapers, and in the event of an instalment remaining unpaid after the time appointed, the Directors are authorised to declare the shares (in respect of which such instalment shall be due) to be forfeited, and only to be redeemed by the Shareholder, on his paying 20 per cent. on the amount of the call, within one month from their being declared forfeited.  
9. The Scrip Shares of the Association shall be signed by three Directors.  
10. The Directors are empowered to make such bye-laws as may be necessary for the due management of the affairs of the Association, and which bye-laws shall remain at the offices of the Association, in London and Truro, for the inspection of all Shareholders.  
11. All surplus capital shall be invested in Exchequer Bills, or other Government securities.  
Persons desirous of taking shares can obtain them upon applying to either of the Bankers of this Association, and paying the deposit of £5 on each share; but such application must be made on or before the 1st of August next, as, after that period, the remaining shares, if any, will only be to be obtained at a premium for the benefit of the Shareholders generally.



# RHYDGAILED AND SOUGHTON COAL AND IRON COMPANY.

Capital £25,000, in 5000 shares of £5 each. Deposit £1 per share.  
MANAGING DIRECTOR at the Mines.—Richard Adams, Esq., Mold.  
BANKERS—Northern and Central Bank of England, Liverpool and Mold.  
SOLICITORS—Messrs. Miller and Peel, Liverpool.

The land which it is proposed to work consists of about 40 acres, the greater portion of which is held on lease for twenty years, and the remainder for fifteen, fourteen, and seven years, subject to a rental of £700 per annum, and a royalty of one-seventh of the mineral produce to the lord, with a promise of renewal of the lease without rental.

The superstrata consist of clay and iron-stone, with inter-layers of coal, and the main coal beneath throughout the estate. The lessees have also power to make bricks for their local buildings, as well as to get stone for the same purposes.

The works completed are, a counting-house, with dwelling for a superintendent; a blacksmith's shop; one shaft, already sunk to the depth of eighty yards on the main coal; a second shaft, fifty-five yards deep, which, by the labour of twenty-five men, may be sunk in a month to the depth of sixty-seven yards, which will also reach the main coal, ascertained, by boring, to be at that depth. When this is completed, both shafts will be in a state to bring up coals superior in quality to those of other kinds in the neighbourhood. There are three collieries in the vicinity, two of which are expected to be worked out within two years. There are three steam-engines erected, (one of eighteen and two of ten-inch cylinder), pump-work complete on one shaft to the depth of eighty yards, two weighing-machines, four whistles, and a railroad laid for about three-quarters of a mile in length, with a coal-yard at the terminus on the Northop and Holywell road.

The vein of coal nearly ready for working is nine feet thick, exclusive of the Brasseley coal, of three feet, and suitable for smelting iron. The latter is found in great abundance throughout the estate, having been assayed by a practical and scientific chemist in Liverpool, is found to produce forty-four per cent. of iron; it is therefore intended to erect two furnaces to smelt the ore. The lower vein of coal, which is of the best quality, will yield about 100 tons per day, capable of considerable increase, by sinking other shafts.

The situation of these mines is a mile from Mold, three miles from Northop, six miles from Flint, King's Ferry, and the Vale of Clwyd; but, as the coals are superior in quality to those of other collieries in the neighbourhood, carts come to fetch them from a distance of twenty-two miles.

## CALCULATION.

PRODUCE OF COALS.—500 tons per week, deducting royalty and expenses of raising, will leave a profit of 3s. 6d. per ton, being £2 10s. per week, or per annum.....	£2,730
PRODUCE OF IRON.—Sixty tons per week, at £30 per ton, Ironstone, three and a half tons, for one ton of iron (being much below the assay of forty-four per cent.).....	£360
Expense of raising, royalty, limestone, coke, labour, and carriage to Flint, £2 2s. 2d. per ton.....	144 10
Profit per week.....	216 10
Being per annum.....	11,196
Deduct rent,.....	700
£10,000 capital, at ten per cent. per annum.....	1,000
Expenses computed at.....	1,640
Annual profit.....	£5,856

If the price of iron fall so as to realise only half the above income, the profit to the adventurers would still be fifty per cent.

## REGULATIONS.

- The capital of the Company shall be £25,000, in 5000 shares of £5 each.
  - A deposit of 2s. 6d. per share, to be paid on allotment, to defray the contingent expenses of the formation of the Company.
  - The first instalment, of £1 per share, to be paid to the bankers within ten days after the appointment of Directors; and the second instalment, of £1 per share, within three months.
  - The Directors to be chosen by the Shareholders, at a meeting to be convened within seven days after notice.
  - Fifty shares to be the qualification of a Director.
  - No further instalment to be called for without the consent of two-thirds of the Proprietors present at a public meeting.
  - The shares to be signed by two Directors and the Secretary. A register to be kept, to record to whom the shares are first issued, and for transfers.
  - The original report from the mines, together with the books of the Company, shall be always open to the inspection of the Shareholders.
  - That all contracts for purchases by the Company be for ready money.
  - A General Meeting of the Shareholders shall be held in Liverpool, in the month of July in each year, commencing in 1857, at which a full report of the Company's affairs shall be submitted, with a statement of the accounts.
  - That, at all meetings of Shareholders, a Proprietor of five shares shall have one vote; of ten shares, two votes; of twenty shares, three votes; of fifty shares, four votes; of one hundred shares, five votes; and of two hundred shares and upwards, six votes.
  - That an assignment of the leases will be made to the Directors, as Trustees of the Company, and that the Shareholders shall sign a Deed of Settlement.
- Application for shares to be made to Henry Tribe, Esq., 19, Abchurch-lane; James Hakeman, Esq., 148, Regent-street, London; or to Henry Lucas, secretary, 174, Dale-street, Liverpool.
- N.B. A plan of the estate, sections of the strata, specimens of the iron stone, a recent report of the present state of the mines, and detailed calculations of the produce and expense of working the mines, may be seen at the offices of the Secretary, June 1, 1856.

# LONDON AND PORTSMOUTH RAILWAY DIRECT,

with a BRANCH to CHICHESTER and BOGNOR, terminating in spacious Docks at PORTSMOUTH.

Capital £1,200,000, in 24,000 Shares of £50 each. Deposit £2 per Share.

The Provisional Committee are proceeding with the necessary arrangements, connected with the Branch advertised to Chichester, and an active survey of the line is being prosecuted for carrying into effect the original intention of this Company, for constructing the intended railway between London and Portsmouth, by the most direct and practicable line, as they have throughout acted under the conviction that any other or more circuitous line must only entail on the passengers and transit of goods between those places additional cost of conveyance, in proportion to the extra length adopted, without any corresponding benefit being derived.

It is with much satisfaction the Committee are enabled to state, that the reports they are now receiving daily from the surveys on the line are most favourable, and encouraging in the highest degree as to the facilities for prosecuting their task, and the high appreciation in which the proposed undertaking is held by the local residents, and the Committee are even able, at this stage of their proceedings, to announce, that it is already accurately ascertained that the sections of the more intricate parts of the line are not only easily practicable, but that neither tunnel nor any formidable excavations will have to be encountered.

The promoters of and the Provisional Committee of Management of this undertaking, abstain from fully publishing the measure until the final results of the surveys will enable them to lay the exact route of the main line itself, and of the respective branches in detail before the public; so that efficient means of investigation may be afforded, which can alone secure public support and the sanction of the Legislature.

The proposed direct line, which will pass through Guildford and Godalming, was submitted to the attention of a public meeting held at Guildford, on the 25th inst., at which the mayor, John Suddipce, Esq., presided, when a committee of the inhabitants of that borough was appointed to take into consideration the best means of securing Guildford and Godalming the advantages of such mode of communication.

Any information required may, in the mean time, be obtained at the offices of the Company, No. 7, John-street, Adelphi, where applications for shares will be received, (if by letter, post paid), and also to the Company's agent at Portsmouth, J. N. Robinson, Esq.; or at Portsea, to Archibald Low, Esq., solicitor.

# SOUTH TOWAN, ROSE ANN, and WHEEL LYDIA CONSOLIDATED COPPER and TIN MINES, situated in the parishes of Illogan and St. Agnes, in the county of Cornwall.

Capital £64,000, in 16,000 shares of £4 each. Deposit £2 per share.

LONDON BANKERS—Messrs. Stone, Martin, and Stone, Lombard-street.

LIVERPOOL Do.—Northern and Central Bank of England.

TREASURER Do.—Messrs. Wiliams and Co., Miners' Bank.

BARNET—Mr. James Buckland, agent to the St. Alban's Bank.

South Towan and Rose Ann Mines are situated in the parish of St. Agnes, and Wheel Lydia in the parish of Illogan, in the county of Cornwall, in a rich mining district, and adjoining, or surrounded by, the productive mines of Great Wheel Towan, United Hills, Wheel Eden, Wheel Charles, and Wheel Sparrow.

The united mines of South Towan, Rose Ann, and Wheel Lydia, together nearly a mile in length, contain four large copper and tin lodes, which are comprised in a parallel between the mines of Great Wheel Towan and the United Hills; the former of which produced nearly £200,000 in the year, and the latter, now in course of working, yields a profit to the proprietors of £4000 per month.

As a circumstance highly favourable to the prospects of these Mines, it may be stated that the principal part of the ore raised from the adjoining Mines was found between two cross-courses, distant from each other about 200 fathoms, intersecting the lodes nearly at right angles, and including the same length on all the lodes of the South Towan Consols. Of these, only one has been explored below the depth of the adit, where it has yielded already considerable quantities of Copper and Tin. Between these cross-courses in the adjacent mine, Great Towan, the profits allowed to were realised, and it precisely the same situation the United Hills are now producing £4000 per month.

The engine-shaft is sunk to the depth of sixty-four fathoms below the adit, and a cross-cut is proceeding to intersect the lode at that level; the upper levels have been, and are still, productive, the ore continuing in depth, and the mine yielding regular monthly returns. All the buildings requisite for the Mine are completed and in good condition. An Engine House with Steam Engine of 40-horse cylinder, completed and in full work, with pump, pit-work, &c., fixed in the engine-shaft; all in excellent order and in full operation. A powerful water-wheel for pumping, and other hydraulic machinery for stamping or reducing ores, with floors, &c., &c., complete—Smith's and Carpenter's Shops, Sheds, Barracks for Miners, Counting-house, tools, implements, whips, ropes, capstan, sheers, and materials of every description.

The Directors confidently anticipate no further call beyond the present deposit will be required, and that the proceeds of the Mines will enable them to declare a dividend within the ensuing year.

Application for shares and prospectuses to be made to Mr. Bateman, the Secretary, or to Mr. Henry Tribe, 18, Abchurch-lane, London; Mr. James Buckland, Barnet; or Mr. Henry Lucas, 174, Dale-street, Liverpool.

Office, 148, Regent-street, May, 1856.

# ST. NEOT AND ST. CLEER CONSOLIDATED MINES.

At a Meeting of the Shareholders in these Mines, held at ELLIOTT'S ROYAL HOTEL, DEVONPORT, on Thursday, the 2d inst.

JAMES DUCK, Esq., M.D., in the Chair.

A statement of the progress and prospects of the Company's affairs, which gave very great satisfaction, having been laid before the meeting, the Managing Director (as the representative of the original proprietors) signified his readiness to place the affairs of the Company in their hands preparatory to issuing the Scrip, when the following resolutions were severally put and carried as the future regulations of the Company:—

That the Capital of the Company be £50,000, divided into 4000 shares, at £10 per share. Deposit £1 10s.

That the affairs of the Company continue to be managed by Mr. R. Urow, Managing Director, aided by Four Directors, elected by the Shareholders; two of these shall go out of office, in rotation, annually, and their places be filled by election, the same to be eligible for re-election. The qualification of the Managing Director to be fifty shares, and of a Director twenty; on ceasing to hold which, they shall be ineligible. The Secretary to give four days' notice of a meeting of the Directors, but the majority present competent to act. All vacancies in the Directorship to be filled up at the first General Meeting after, but in case of the disqualification of the Managing Director, a Special Meeting shall be convened to fill the vacancy.

That the Directors shall appoint all future agents, and have the power to make the calls necessary for procuring the working of the Mines, provided no call be made previous to January, 1857; and then not to exceed 10s. per share, before the first General Meeting in July, 1857.

That all shares on which the calls shall not be paid within twenty-one days after notice of such call has been given in the Mining Journal, Devonport Telegraph, and West Briton, shall be forfeited, with all profits, dividends, and advantages, for the benefit of the rest of the company, but the next annual meeting may restore the same, on such terms as shall then be deemed proper.

That the first Annual Meeting of the Company shall be held in Devonport, in July, 1857, of which ten days' notice shall be given in the above-named papers, when a statement of the Company's affairs shall be produced, and three auditors elected from among the Shareholders, to examine and report upon the same.

That the Directors shall have power to convene a Special Meeting at any time, on giving ten days' notice, above, and shall call meetings within one month, upon a requisition being addressed to them, signed by not fewer than twenty shareholders, holding, collectively, 500 shares, and stating the object of the meeting.

That, at General Meetings, a Chairman shall be elected, holding not less than twenty shares, when questions may be decided by show of hands, but if a ballot be demanded, and supported by six adventurers present, entitled to vote, and such demand, in writing, delivered to the Chairman, each holder of six shares to have one vote, of fifteen to two, thirty to three, fifty to four, and for each additional twenty, one vote, but none to be entitled to more than eight votes. No voting allowed by proxy, and no Shareholder to be allowed to vote who has not been registered one month previous to the meeting.

That the Directors shall have power to take other Sets, which they may deem necessary or advantageous to the working of the Mines already in the Company's possession, provided the expense of such Sets does not involve the Company beyond the amount of the subscribed capital.

That the Directors determine the amount and payment of dividends.

That no accounts above £20, except for wages, be settled without being first submitted to the Directors, and sanctioned by two of them.

That all monies, for the use of the mines, be deposited in the East Cornwall Bank, in the name of the Managing Director, and all sums above £5 be paid by cheque.

That no Shareholder be liable for more than the amount of his or her individual share of the subscribed capital.

That a sum not exceeding £250 per annum, be allowed as salaries for the Managing Director, Purser, and Secretary, until an increase is sanctioned by a General Meeting.

That materials be purchased on the best terms, for cash.

That the General Meeting have the sole power of making bye-laws.

That this meeting acknowledge with satisfaction the fidelity and ability of Capt. Treddinick, to the present time, and confidently hopes that he will continue to merit the trust reposed in him.

That the thanks of the meeting are due to those gentlemen, especially to Mr. Towson, jun., who, having personally inspected the Mines, have afforded such valuable and encouraging information.

That the best thanks are due to the Managing Director for his honourable conduct at the present meeting, which entitles him to the utmost confidence, in his zeal, ability, and candour.

JAMES DUCK, Chairman.

Resolved—That the best thanks are due to the Chairman for his gentlemanly and attentive conduct in the chair.

That a report of the proceedings be published in the papers before named.

CHARLES ROW, Secretary.

Devonport, 2d June, 1856.

The Shareholders are informed that the Scrip will be ready for delivery on the 20th inst., and if not applied for within twenty-one days, will be forfeited to the Company agreeably to the conditions of the Prospectus.

# BURTON-UPON-TRENT AND LEICESTER UNION RAILWAY.

To unite with the Ashby-de-la-Zouch Canal and Railway, the Birmingham and Derby Railway, and the Manchester South Union Railway.

PROVINCIAL COMMITTEE.

John Webb, Esq., Burton-upon-Trent. Wm. Watson Abney, Esq., Measham Hall.

Demphster Hemmings, Esq., Caldecote Hall. Robert S. Peel, Esq., Burton-upon-Trent.

John Mannatt, Esq., Ashby-de-la-Zouch. Wm. Daniel, Esq., Burton-upon-Trent.

Michael T. Bess, Esq., Burton-upon-Trent. Wm. Worthington, Esq., Burton-upon-Trent.

J. B. Needham, Esq., Hinckley. J. B. Needham, Esq., Hinckley.

With power to add to their number.

BANKERS.

Burton-upon-Trent—Messrs. Burton, Webb, Peel, and Co.

Ashby-de-la-Zouch—The Leicester and Ashby Banking Company.

Leicester—Messrs. Pares's Leicester and Ashby Banking Company.

Hinckley—Messrs. Hemmings and Needham.

STANDING COUNSEL FOR THE BILL—W. T. S. Daniel, Esq.

SOLICITORS.

Burton-upon-Trent—Messrs. Fowler and Richardson.

Ashby-de-la-Zouch—Mr. Peter Fearnhead.

ENGINEERS—Messrs. Twigg and Woodhouse, Ashby-de-la-Zouch.

CONSULTING ENGINEER—George Stephenson, Esq.

Capital £300,000, in 3000 shares of £100 each.

Deposit £2 10s. per share, on being admitted a shareholder; and £2 10s. per share on the 15th of January next.

Application for shares, in the following form, to be made to the respective Banks, or by letter (post paid) to the solicitors.

TO THE PROVINCIAL COMMITTEE OF THE BURTON-UPON-TRENT AND LEICESTER UNION RAILWAY.

Gentlemen,—I request to become a subscriber for shares in this undertaking, and agree to take such shares as shall be allotted to me, and to pay the deposits thereon, in conformity with the prospectus, dated 13th of April, 1856; and to execute the parliamentary contract and subscribers' agreement, as and when I shall receive notice so to do.

I am,

[The Christian and Surname, with date and address, to be signed by the applicant.]

# STAFFORDSHIRE COAL AND IRONSTONE COMPANY.

Capital £100,000, in 10,000 shares of £10 each.

PROSPECTUS.

The objects of this Company are to work Mines of Coal and Ironstone at royalty; and to dispose of the same to coal-masters, iron-masters, and other consumers, without interfering with the retail coal trade; and it is intended to confine the operations of the Company to these objects only, and not to extend them to any branches of the iron trade. Experience has proved that the working of Mines has been at all times a safe and profitable mode of investing capital; and at the present period, when the demand for Coal and Ironstone in particular has so much increased, and is likely to go on increasing, it is considered that the formation of a company for the working of such mines in the neighbourhood of Birmingham, will be attended with great advantage to the shareholders, as well as benefit to the town and adjoining districts.

Arrangements are in progress for taking an extensive range of the Thick, or Ten Yard Coal, situated nearer to Birmingham than any coal hitherto worked, and possessing great facilities for canal and land carriage.

The names of the Provisional Directors, or of the Shareholders, will not be disclosed until the Company is formed, as it is wished that parties applying for shares should be influenced only by the merits of the undertaking.

The following are some of the Conditions upon which the Company is intended to be formed:—

First.—That the objects of the Company shall be confined to the working of Mines of Coal and Ironstone at royalty, and to the disposing of the same to coal-dealers and iron-masters, without interfering with the retail coal trade or the iron trade in any of its branches.

Second.—That the capital of the Company shall be £100,000, divided into 10,000 shares of £10 each.

Third.—That a deposit of Ten Shillings per share shall be paid upon allotment; and that such deposit shall be available to the necessary expenses incidental to the formation of the Company.

Fourth.—That the further sum of Ten Shillings per share shall be paid immediately after the appointment of Directors; and that the remainder of the capital shall be paid, when required, in calls of One Pound per share, three calendar months' notice being given of each call.

Fifth.—That the affairs of the Company shall be under the control of Nine Directors, who shall be chosen annually by the Shareholders; and that any Shareholder holding one hundred shares or more shall be eligible as a Director; and that each retiring Director shall be eligible to be re-elected.

Sixth.—That immediately after the appointment of Directors, a Deed of Settlement of the Company shall be prepared, containing such provisions as they shall think fit; and that each Shareholder shall execute such deed, upon being required by the Directors so to do; and that no Shareholder shall be responsible beyond the amount of his or her shares.

Applications for shares, according to the form underneath, to be made to Messrs. Stubbs and Rollings, solicitors, Birmingham; and Messrs. Carter and Dewes, solicitors, Oldbury. Bankers—The Bank of Birmingham.

STAFFORDSHIRE COAL AND IRONSTONE COMPANY.

Gentlemen,—I request you will reserve and secure to me shares in this Company, and in consideration thereof I agree to take the said shares upon the conditions mentioned in the prospectus.

Dated the 14th day of May, 1856.

# IMPERIAL BRITISH MINING COMPANY.

Capital £100,000, in shares of £10 each. Deposit £1 per share.

MANAGING DIRECTORS.

Captain Thomas Gould. Thomas W. Musket, Esq.

Thomas Fulton, Esq. William Odqvist, Esq.

With power to add to their number.

TREASURER—George Alfred Musket, Esq.

BANKERS—The London and Westminster Bank, London. Messrs. Robins and Co. (East Cornwall Bank), Launceston and St. Austell.

SOLICITORS—Messrs. Lacy and Bridges.

SECRETARY—George Ross, Esq.

Office, No. 3, Copthall-buildings, London.

The object of this Company is to work the following Mines, situated in the neighbourhood of Launceston and St. Austell, Cornwall, viz:—

Wheal Martha. The Windsor.

Wheal Edward. Wheal Charles.

Wheal West Wheel Friendship. New Treasavean.

Wheal Concord. Wheal Goffin.

These Mines, full particulars of which appear in the prospectus, have been secured on very advantageous terms; they are justly appreciated by competent judges, not only for their mineral riches, but for other advantages which attend them, not the least important of which is the abundant supply of water, furnished by several never-failing streams, which, as respects most of the mines, entirely supercedes the necessity of employing steam power, either for raising the ores or stamping them. The lodes in the various sets are numerous, and extremely rich in silver, lead, copper, and tin.

The Deed of Settlement, in addition to the usual clauses, will contain one to limit most effectually the liability of the Shareholders to the amount only of their respective shares.

Applications for shares to be made (if by letter, free of postage), to Messrs. Lacy and Bridges, No. 19, King's Arms-yard, Coleman-street; J. S. Massett, Esq., No. 4, Angel-court, Throgmorton-street; Mr. Hugh Snell, Callington; Mr. William Jago, St. Austell; or to the Secretary, at the offices of the Company, No. 3, Copthall-buildings, London; of whom prospectuses and any further additional information may be obtained.

# EAST AFRICAN COMPANY, for Trading and Founding

Settlements, and promoting Civilization, chiefly on the South-Eastern Coast of Africa.

Capital £3,000,000, with power to increase it to £5,000,000, in 60,000 Shares of £50 each. Deposit £2 10s. per Share.

Preliminary prospectuses may be obtained at the temporary offices, as under:—

A detailed prospectus, containing the names of the Provisional Committee of Direction, with a Map accurately laid down from the recent Government, and other exploratory Voyages, will be issued in a few days.

The Report of the Provisional Committee, and a valuable Memoir on the vast natural and commercial resources of Eastern Africa are already printed, and will be issued with the detailed prospectus.

Local Committees will be immediately formed in several of the principal provincial districts, to aid in the proper allotment of the shares reserved for the same, and to advance the various important interests opened by this Company to the manufacturing interests in particular.

CONSTITUTION OF THE COMPANY.

The leading principles regulating the constitution of the Company are:—

1. The Shareholders will be effectually guarded from individual responsibility by a carefully drawn Deed of Settlement, which has been expressly prepared by the most eminent legal talent, and by which the Company will be regulated till the Act of Incorporation is obtained.

2. The Directors will be elected by the Shareholders.

3. Full publicity will be given to every stage of the Company's affairs.

4. Not more than one call (if any) will be made till accounts are received from the first vessels, and no subsequent calls will be made at a less interval than three months, exclusive of 31 days' notice.

Application for shares, properly authenticated, may be forwarded to the temporary offices of the Company, 4, Adam-street, Adelphi.

# ANTI DRY-ROT COMPANY.—Kyan's Patent for the

Preservation of all Timbers, Canvases, and Cordage, from Dry-Rot and Decay. Constituted by Act of Parliament.

The Directors of this Company inform the public, that tanks on an extensive scale are now established at the following stations in London, where every facility is afforded to ship-builders, timber-merchants, builders, carpenters, &c., for the preparation and seasoning of timber, deals, and all descriptions of wood, according to the patent process.

Principal station—South Dock, West India Docks.

Branch stations—Grosvenor Basin, Millico; Canal Basin, No. 4, Wharf, City-road; Grand Surrey Canal Dock, Rotherhithe.

The Company, for the convenience of the shipping interest, have established floating tanks, which can be sent to any ship-builder's yard in the river Thames.

Canvases, &c. for sails, rick-cloths, awnings, tents, &c., will be prepared, if sent to either of the above stations.

The Directors will grant licenses to ship-builders, timber-merchants, &c., for tanks on their own premises.

Terms of licenses, and further particulars, may be obtained of the Secretary, at 2, Lime-street-square, Leadenhall-street.

# PEMBREY HARBOUR COLLIERIES & IRON WORKS,

CARMARTHENSHIRE.

SHUTTLEWORTH and SOX have been instructed by the assignees of Messrs. Bonner, Calthorp, and Pulvertoft, the proprietors of the Pembrey Coal and Iron Works, to announce for Sale, at the Auction Mart, in London, on Friday, July 5, at twelve, the very important and valuable property, comprising

THE OLD HARBOUR OF PEMBREY,

with the extensive Collieries and Iron Works connected therewith; likewise all the machinery, canals, tram-roads, steam-engines, furnaces, materials, rails, tools, implements, and utensils of both collieries and iron works; mines of coal of excellent quality and considerable extent; a good residence, manager's agent's, and workmen's houses, ships, canal-boats, and all requisite appendages, situate at Pembrey, near the vale of Gwendraeth, Llanelli, in the county of



**WHEEL BROTHERS and HARVINNA TIN and COPPER MINING COMPANY.**

Capital 15,000, in 3,000 shares of £5 each. Deposit £1 per share.

**DIRECTORS.**

Captain H. M. Marshall, R.N.  
 Thomas Wilkinson, Esq.  
 Solicitors—Messrs. Harrison and Dobree.  
 BANKERS—Messrs. Drevett and Fowler.

These Mines are situated in the parish of Alton, in the county of Cornwall, about nine miles from Launceston, and extend over 800 acres of land. They have been worked upon as far as practicable without machinery, and have produced many thousand pounds worth of tin.

The Directors have had them surveyed by competent persons conversant with mining operations, and acquainted with the locality, state, and properties of the mines, and have the satisfaction to inform the shareholders in this undertaking that they are pronounced to be some of the best mines in the county; and with an outlay sufficient for the erection of water machinery, stamps for dressing tin, &c. (being all that is required to bring them into a proper working state), many thousand pounds a year profit may be derived therefrom; and further, that they may be brought into complete operation in the space of six months. A certificate of survey is with the prospectus.

Applications for shares to be addressed, post paid, to the Secretary, at the office of the Company, 6, Great Winchester-street.

**WEST CORNWALL MINES INVESTMENT COMPANY.**

Capital £100,000, in 10,000 shares of £10 each. Deposit £1 per share.

**DIRECTORS.**

John Kempe Devonshire, Esq.  
 G. Thornbury, Esq.  
 With power to add to their number.  
 CASHIER—Mr. John Tippet, Truro.  
 AUDITOR—G. Thornbury, Esq., Chancery-lane, London.  
 SOLICITORS—Messrs. Whishaw, Gray's Inn.  
 CONSULTING MINE AGENTS.  
 Sampson Trevelyan, Consols Mine. John Sampson, Chacewater.

Major, Turner, and Major, Truro. Sir R. C. Glynn and Co., London. It has been subject of remark, by persons holding shares in mines under the old limited system of 64ths, 128ths, and 192nds, that a market for such shares is not always attainable, especially in the best mines, where shares are worth from £1000 to £2000 each, and therefore not generally sought after; whereas those on the scrip plan find a ready sale, even where the value of the mines advertised in is not so obvious.

It is therefore proposed to form a company, for purchasing shares in mines, (confined to Cornwall,) yielding large present profits, and in new and promising mines, likely to be early and permanently valuable.

Among the advantages to be derived from this Company, that of affording to persons desirous of effecting sales of shares in rich mines a ready means of doing so, is only a subordinate one. Small adventurers, through the medium of this association, as well as the capitalist, will be enabled safely to invest sums of any amount, and with a certainty of a high rate of interest, as, taking the average of the mines proposed to be advertised in, a rate of interest varying from £12 to £20 per cent. may be calculated on.

**REGULATIONS.**

It is proposed to divide the Company into 10,000 shares, of £10 each. That a deposit of £1 per share be paid to the hands of the Company's bankers, in London, on or before the 9th of June instant; and that the Directors shall be empowered to contract for and purchase shares in mines, or entire mines, and to work the same; and, if desirable, to re-sell such shares or mines, and make other investments, and generally to carry into effect the objects of the Company; also, to make further calls of £1 per share, to meet their outlay, giving thirty days' notice thereof in the county papers, the *Mining Journal*, *Times*, (London), and such other newspapers as may be considered necessary; but such calls not to be oftener than once in three months, nor to exceed in the whole £1 per share.

That a general meeting of the Company shall be held in London, once in every year, of which due notice shall be given. Holders of five shares to have one vote, ten shares two votes, fifteen shares three votes, and upwards in like proportion; but not to exceed in the whole twenty votes.

That the affairs of the Company shall be conducted by the present Directors, until the expiration of the first three years, when they shall go out of office, but be eligible to be re-elected.

That vacancies occurring in such Direction by death, resignation, or otherwise, shall be filled up by the remaining Directors.

That the Directors shall appoint Trustees, in whom the property of the Company shall be vested, for the uses of the Company.

That the Trustees, Directors, and Cashier of the Company, shall be holders of at least fifty shares.

That reports of the several mines in which the Company may become interested shall be prepared, and be left at the offices of the Company in Cornwall and London, for the inspection of the Shareholders, every two months.

That a report of the receipts and disbursements of the Company shall be prepared, and a copy be sent to each Shareholder, half yearly.

That all orders for payments of money on account of the Company shall be signed by at least two of the Directors, and countersigned by the Auditor; and that cash balances, not required for the use of the Company, shall, from time to time, be invested by the Directors in Exchequer Bills, or other approved securities, for and on account of the Company; and that such Exchequer Bills shall be lodged with the Company's bankers in London.

That a dividend, not exceeding £10 per cent. per annum, shall be paid to Shareholders, half yearly, beginning from the 31st of June instant, or as soon afterwards as the arrangements of the Company's affairs will admit; and that the surplus profits shall, from time to time, be divided by way of bonus, or go in augmentation of capital in new investments in mines, as shall be considered most beneficial by the Directors.

That the Directors (two of whom shall have power to act,) shall meet once every two months, or oftener if required, to receive the report of their Cashier, Auditor, and other agents; to examine and pass accounts; and on other general business. Proposals for sale to the Company of shares in rich, or new and promising mines, will be received by the Cashier in Cornwall; by the Auditor, at his offices, 16, Chancery-lane, London; and by the Solicitors of the Company, at 1, South-square, Gray's Inn. All letters to be postage paid.

**THE DURHAM COUNTY COAL COMPANY.**

Capital £300,000, in 10,000 Shares, of £30 each.

**HONORARY DIRECTORS.**

The Right Hon. the Earl of Tyrconnel, Kiplin Park.  
 John Hutt, Esq., M.P., Streatham Castle.  
 William Hutt, Esq., M.P., Gilsdon.  
 Warren Maude, Esq., Greenbank, Darlington.  
 Gerard Salvin, Esq., Croxdale.

**DIRECTORS.**

John Blacket, Esq., London.  
 Captain I. K. Forbes, Esq., ditto.  
 William Faith, Esq., ditto.  
 H. G. Key, Esq., ditto.  
 Joshua Milne, Esq., ditto.

John Prince, Esq., London.  
 William Morrice, Esq., ditto.  
 F. S. Stokes, Esq., ditto.  
 Charles Barrett, Esq., Darlington.  
 John Barr, Esq., ditto.

**TRUSTEES.**

John Labouchere, Esq.

SOLICITORS—Messrs. Stokes, Hollingsworth, and Tyerman, London; Thomas Wheldon, Esq., Barnard Castle; George Allison, Esq., Darlington.  
 BANKERS—Messrs. Williams, Deacon, and Co., London; the Darlington District Banking Company, Darlington.  
 SECRETARY—William Bedford, Esq.

**PROSPECTUS.**

At a time when the capital of the country has been so liberally applied through the medium of joint stock companies to promising objects of great public interest and national utility, it is singular that no such measure has yet been adopted for supplying, under more favourable circumstances than at present exist, an article of such general and important use as coal. The vastly increased consumption which of late years has taken place in large towns lying out of the coal districts, and more especially in the metropolis, renders it an object of the first importance that these places should have the advantage of being steadily supplied not only with a sufficient quantity, but that also of the best quality, and under the most favourable circumstances.

It is a well-ascertained fact that many of the coal mines in Northumberland, upon which the public have been hitherto mainly dependent, are now nearly exhausted, at least so far as regards their capability of supplying the better description of coals, and it therefore becomes important that consumers should not be reduced to the necessity of deriving their supply from that or any other quarter where inferior coal is only to be had when ample resources are in existence for providing an efficient supply with greater advantage.

In the Southern Division of the county of Durham, in particular, extensive fields of coal of the very best description are found to exist, which as yet have been but partially worked; but it has now been determined to conduct several of these upon a system of more extended operation, and this determination is likely to be much aided by the recently established and newly projected lines of railway which will facilitate the communication between these collieries and the present shipping ports of the Tees.

In order to secure the full effects of these advantages, and under the conviction that they will be best secured by a combination of energy and the employment of capital on an extended scale, it has been determined to establish "The Durham County Coal Company."

Several of the collieries now in the hands of private individuals are realising very large annual profits on the invested capital beyond question, and when the immensely increased and increasing consumption of coal, not only in London, but in the various other parts of this country which are dependent for their supply upon the collieries in the North, and also the growing demand in continental ports, are considered, there appears no reason to doubt that these liberal profits will continue to be maintained.

A sufficient number of shares having already been subscribed for, the Provisional Committee of the Company have purchased several valuable and extensive Collieries, which are now in successful operation, and the produce of which maintain a first-rate character in the London market. They have also purchased two other Collieries now in progress of completion, which, in the course of a few months, will be capable of producing for shipment, a large quantity of the best Wall's End coals.

The Directors have concluded all the necessary preliminaries for the formation of the Company, and for actively working the Collieries.

For the present it is the intention of the Directors to confine the operations of the Company to the county of Durham, as containing the most valuable description of coal, and the vending of which will produce the greatest return of profit to the shareholders.

The property will be held by Trustees for the Company, and all requisite arrangements made for the security of the shareholders.

The Collieries will be under the superintendence of a Manager, Engineer, and Viewer, all of high character and experience. The first instalment of £1 per share is payable immediately on allotment. The remaining payments will not be called for earlier than at intervals of three months, and each payment will not exceed £1 per share.

Applications for the remaining shares to be made to the Solicitors of the Company; or to the Secretary, at the Company's office, 32, Great Winchester-street, of whom prospectuses may be had, and further particulars obtained.

No applications for shares will be received after Saturday, June 18.

**ON THE SYSTEM OF CONTRACTS PURSUED IN THE MINES OF CORNWALL.**

[The following article is extracted from the "Penny Magazine" for December, 1834, and contains a very interesting feature in the mining transactions of Cornwall.]

Of all the varied and complicated relations incident to a highly-civilized state of society, there are perhaps none which it is so difficult to adjust in a fair and satisfactory manner as those which exist between masters and men—between that class whom education, talent, and the possession of capital, places in a situation to direct and to employ, and that far more numerous one whose skill or labour can only be rendered available through the medium of the former.

The object of this paper is merely to describe and render more generally known a system under which these difficult relations are made to adjust themselves, as regards one important branch of national industry—we allude to the plan long pursued in the mines of Cornwall, and of late years successfully introduced from thence into other parts of the kingdom.

With the exception of the small number of individuals employed as superintendents, clerks, &c., and who of course are paid by fixed salaries, the whole labour of the Cornish mines is performed by contracts made at stated intervals, generally once in every two months. These contracts are made publicly in the open air, and the proceeding is attended by all the miners in the neighbourhood who may be desirous of undertaking any of the work which is to be performed. The manner in which the business is carried on is very similar to a common auction, the different parcels of work being the article bid for, and the men the purchasers, or, more properly (though technically speaking, the "takers," of these allotments, the price at which they are taken being entirely regulated by the competition among them. There is, however, this peculiarity, that the work is always put up at a price much higher than ought fairly to be paid for it, and this price is gradually reduced to a proper standard by the competition among the men. The whole proceeding is guided by certain forms and regulations binding on all parties, which are read aloud at the commencement, and the contracts remain in force for the ensuing two months, when they are again renewed in the same manner; one allowance being made for all the varying circumstances which may have affected the works during the preceding interval.

This system has been pursued in Cornwall from time immemorial, and so admirably does it reconcile all conflicting interests, that strikes among the miners are there unknown, although so prevalent among labourers of a similar class in the north of England: we allude to the coal miners, with whom a much less perfect system of payment prevails, and whose combinations and strikes, together with the outrage and violence frequently attending them, must be familiar to most of our readers.

The mode of carrying this system into effect is in itself so interesting, that we shall now proceed to describe it more minutely, together with such other circumstances as may be necessary to render the whole intelligible.

The work done in the mines of Cornwall is principally of three kinds, technically termed "tutwork," "tribble," and "dressing."

Tutwork consists in making all those excavations which have for their ultimate object the discovery or extraction of ore, but which are not executed for the sole purpose of obtaining it, being often made in the barren rock or in the unproductive parts of the vein. Of this kind are shafts, cross-cuts, levels, winzes, &c. This work is paid for by the fathom in depth or length, or in some cases by the cubic fathom, and when the substance extracted, or a portion of it, is of any value, the miner receives in addition a certain proportion of that value, which induces him to keep the ore as clear as possible from the rock or rubbish which is broken with it, and would otherwise deteriorate its quality. The price usually paid for tutwork varies from about 5s. or 6s. per fathom, to 30s. or 40s., depending on the hardness of the ground, the nature of the work to be performed, and various other circumstances. In excessively hard ground as much as 80s., or even 100s. per fathom, has occasionally been given.

Tribble is in some measure the reverse of tutwork, since it includes all those excavations from which ore is actually obtained, and which are made merely for the purpose of procuring it. As, however, the quality of the ore is extremely variable, this kind of labour is not paid for by the quantity of work done, but by a certain proportional part of the actual value of the ore, when brought to the surface, and reduced to a saleable state, or one in which it is fit for the operations of the smelter, to whom it is generally sold on the mine, the business of the miner and smelter being usually quite distinct, and carried on by entirely different parties. The mode of estimating the price of tribble is by a certain sum for every twenty shillings worth of ore raised from the mine and rendered saleable. Like tutwork this amount is extremely variable. Where the ore is very rich and abundant, from sixpence to a shilling in the pound is generally given; but when, on the contrary, it is poor and in small quantity, the tribute sometimes amounts to fifteen or sixteen shillings in the pound. In executing either description of work, from two to four men usually work together; but as the work of a mine proceeds day and night without interruption, it is necessary that the party who take the work should consist of three times the number actually employed at a time, so that different sets of men may relieve each other in succession, each party working but eight hours in the twenty-four. By a singular misnomer, however, such a party of men, although usually varying in number from six to twelve, are always called a "pair," perhaps because only two often work together. In forming the contract there is always one man of such a party, who having agreed with the rest as to the terms, takes the lead in making the bargain. This man is considered as the responsible person, and called the "taker," by which means the proceeding is greatly simplified.

Dressing consists of those processes which the ore undergoes when brought to the surface, in order to reduce it to a state fit for smelting, and is chiefly performed under the same contract as tribble, of which it may be said to form a part, although carried on upon the surface, and by a different set of persons. The poorer parts of the ore, called the "haleans," which would not pay for dressing under the original contract, are again "set" to other persons at a higher price.

Having now given an outline of the system, of the different kinds of work, and of the mode of payment, we may proceed to what is termed the "setting," or "survey," which is the actual process by which the preceding arrangements are carried into effect.

A few days previous to the survey, as the auction is termed, the captains, or superintendents of the mine, examine every part of it, and determine what operations shall be carried on for the next period of two months. Each of these works is distinctly specified and registered in a book kept for the purpose, and opposite each is marked the rate which, in their opinion, will be a fair remuneration to the men for performing it. The captains being always selected from the most intelligent working miners, they are, of course, well qualified to form a correct judgment on this head, as the labour upon which they set a value is of a kind which they themselves have mostly been employed many years in performing.

As all the contracts for the preceding two months expire on the "setting day," it is of course a holiday to those employed in the mine; and it is a pleasing sight to see the population, usually scattered in isolated groups throughout its subterranean recesses, all assembled and enjoying for a time the light of heaven.

The auction, or "survey," is always held in the open air, and before the counting-house or office, where all the business of the mine is transacted, and which is usually situated in a central part of it. In the front of this building there is always a small covered platform, corresponding in height with the first story. About noon the captains of the mine take their station on this platform, and commence the business of the day.

By this time a group of men, amounting, in large concerns, to three or four hundred or more, will have collected around the spot. This group will consist principally of those who usually work in the mine, and partly of miners from the neighbouring country, who may be desirous of obtaining employment there.

One of the captains commences by reading aloud a printed form of rules, which are generally the same in all mines, and prescribe certain conditions upon which the work is to be taken, fines for neglect or idleness, and other necessary regulations.

The name and description of the first piece of work on the list is then read aloud by the captain; this is immediately bid for at a certain price by some person in the crowd below, who with his party may be desirous of undertaking it. The price named is, however, generally much higher than there is any chance of actually obtaining, and some other person will immediately bid perhaps five or ten shillings lower. While the price continues high, the competition goes on briskly; but when it approaches what is known to be a fair remuneration, the miners become more cautious, the competition slackens, and at last ceases altogether.

The captain then throws a pebble in the air, and declares the last bidder to be the "taker" of the work at the price last named. The man then comes forward and gives his name and that of the companions who take the work with him, all of which are then registered in the "setting book," opposite the work taken.

It sometimes happens, however, that the men may have agreed not to bid less than a certain sum for the work, and this sum will of course be higher than what the captain has valued it at. Should the captain still be of opinion that the price they have fixed is a fair one, the work is not considered in this case as actually taken by the last bidder, who has merely the first option of taking it at the captain's price, which they immediately call out and offer him. Should he not take it at this price (which, however, knowing it to be a fair one, is usually the case), the other bidders have in succession the same option, and it will generally be taken by one of them. Should, however, the combination be general, this piece of work, and any others similarly circumstanced, are passed over and "set" again, at some future session, when it will generally be taken at the price originally offered by the men.

or should that really be too low, they are under the necessity of allowing a higher one, so the work will otherwise remain undone.

In this manner the business proceeds, till all the different pieces of work, or bargains have been taken by the men, and often in the course of a couple of hours' work is thus disposed of to the amount of perhaps several thousand pounds, and which will furnish direct employment to many hundred persons for the next two months. All waste of time and trivial disputes are thus avoided, and what is of far more consequence, the price of labour is by this system continually adjusting itself to that standard which is determined by an infinite variety of complicated and fluctuating circumstances, and which no combination, either of masters or men, can permanently alter.

It requires but little examination to perceive that, by the plan we have described, the interests of the men and of their employers is most effectually combined. Tutwork, indeed, differs but little from the piece-work, so often employed in various manufactures; but by tribble, which is a higher kind of labour, and requires much foresight and calculation, the wages of the men and the profits of their employers are so regulated, as necessarily to keep pace with each other, for it is evidently the interest of the men to send to the surface and render saleable as large a quantity as possible of all ore that will pay for extraction, for the least possible cost; and this is also precisely the interest of their employers, who, from this circumstance, are, in great measure, relieved from the expense and trouble of minutely examining into all the complicated details of the concern.

As, however, there are means by which fraud might still be carried on to some extent, this is, in most cases, effectually prevented by the vigilance of the captains, who, from having themselves been working miners, are well aware of the nature of any deceit which might be attempted.

Another great advantage of the tribute system depends, in great measure, on the peculiar nature of the employment. Mineral veins are always extremely inconstant and variable, both as to the quantity and value of the ores which they produce, but from certain indications the experienced miner can often foresee changes of this kind before they actually take place. Intelligent and enterprising tribblers will often therefore undertake to work parts of the mine (of course at a high rate of tribute) where the ores are poor, and would otherwise be neglected; because, from long observation and experience, they are able to see a probability of improvement or discovery; and should this take place, especially soon after the beginning of a contract, their profits may be very considerable, as in this case they will be raising perhaps a large quantity of rich ore, at the same high rate of tribute agreed on when the ore was in small quantity and of inferior value. Sometimes, indeed, by this piece of good fortune, provincially termed a *sturt*, a party of four or six men have made a profit of 500s. or 600s. in the course of the two months. Such instances of good fortune, however, result entirely from the enterprise and intelligence of the men, who, should their expectations not be realised, may sometimes even be obliged to give up the contract with loss. Although, therefore, the first benefit of the discovery is generally that of the miner, the advantage to their employers is also great, especially after a new contract has been made, suited to the altered circumstances of the case.

**GNEISS.**

As this schistose body serves no particular purpose in the arts of life, it attracted little attention till in the progress of modern geology, the importance of its scientific relations appeared. The name, gneiss, was the technical term by which the miners of Freyberg distinguished the roof of their veins, when it was altered, and of a steatitic or greenish appearance, whatever might be its mineral nature, whether granite, porphyry, mica-slate, or our actual gneiss. The little treatise of Werner, on the classification of rocks which appeared in 1797, finally fixed the acceptance now attached to the word gneiss. He describes gneiss as a rock composed of felspar, quartz, and mica, immediately adhering to each other, possessing at once a granitic and a schistose texture. The felspar and the quartz occur in grains aggregated together, which produce the granitic structure. These aggregates are assembled in small plates, betwixt which intervene scales of mica. In this way the slaty texture is produced. Gneiss differs from granite not only in texture, but also from containing commonly a greater proportion of mica; the abundance of which mineral it owes its foliated aspect. Felspar is the predominating principle in gneiss, especially in the deepest seated strata; though it is in less quantity than in granite, relatively to the two other ingredients. It occurs in grains of middling size, or even very small, and of a white or greyish-white colour. The quartz is for the most part in smaller grains. It has a vitreous aspect, and an ash-grey colour. The mica of gneiss is in small scales, often distinct; but sometimes intimately attached to each other, so as to form continuous layers of moderate size. Its most usual colour is grey, which passes often through every shade to black. To its differences the chief variations in the appearance of gneiss are due; because this rock splitting always in the line of these laminae, has its fragments coated with them. Gneiss frequently contains crystals of hornblende. Garnet is the mineral most commonly included in gneiss, occurring thus in the north of Europe, in Norway, and in Greenland, where the crystals are often as large as a nut, and in prodigious number. Humboldt remarked them in great quantities, both red and green, in the gneiss of America, particularly at the Carons.

Gneiss is very distinctly stratified, and whenever it reposes on a granitic mass, it wraps itself round it, and follows its sinuosities.

It is the rock which contains, at least in Europe, most metallic substances. There is hardly one which has not been found in it, and in such abundance as to become an object of mining. The metallic ores are sometimes in veins, but more commonly in beds. Gold is found in it in Dauphiny, at the foot of Monte-Rose, and in the territory of Salzburg. The threads and veins of the mountain of Chalcabres, near Allevard, that afford silver, cobalt, antimony, &c., are in gneiss. This rock, in the Vosges, includes many metals. In the gneiss of Auvergne, threads of lead, silver, and antimony occur. At Keyberg, as also in Hohenau, rich and celebrated mines of silver, lead, &c., are worked. The famous copper mines of Fahlun, in Sweden, occur in the same rock. It contains iron ore in profusion; as in the iron mines of Scandinavia, at Dannemora, Utö, and Arrendal.

In America, according to Humboldt, gneiss is much less metalliferous. Gneiss is the predominant rock of Norway, and of all the north of Europe. It abounds in the Southern Alps, and the Pyrenees, in Greece, in the United States of America, and in the south of that continent it reposes paramount over the loftiest chains of the Andes of Quito. Humboldt observed it also in the mountains of Peru and Venezuela.—*Ure's New System of Geology.*

**EARTHQUAKE AT ZANTE.**

The following graphic description of the horrors of an earthquake is given by Dr. Walsh, in his recent narrative of a "Residence in Constantinople":—

When the servant led me to my room he left a large brass lamp, lighted, on a ponderous carved table, on the opposite side to that on which I slept. My bed, as is usual in this island, was without a canopy, and open above. As soon as I got into it, I lay for some time gazing on the ceiling, with many pleasing ideas of persons and things floating on my mind; even the grotesque figures above were a source of amusement to me; and I remember falling into a delightful sleep while I was yet making out fancied resemblances to many persons I was acquainted with. The next sensation I recollect was one indescribably tremendous. The lamp was still burning, but the whole room was in motion. The figures on the ceiling seemed to be animated, and were changing places; presently they were detached from above, and, with large fragments of the cornice, fell upon me, and about the room. An indelible, melancholy, humming sound seemed to issue from the earth, and ran along the outside of the house, with a sense of vibration that communicated an intolerable nervous feeling; and I experienced a fluctuating motion, which threw me from side to side as if I were still on board the frigate, and overtaken by a storm. The house now seemed rent asunder with a violent crash. A large portion of the wall fell in, split into splinters the oak table, extinguished the lamp, and left me in total darkness; while, at the same instant, the thick walls opened about me, and the blue sky, with a bright star, became, for a moment, visible through one of the chasms. I now threw off the bed-clothes, and attempted to escape from the tottering house; but the ruins of the wall and ceiling had so choked up the passage, that I could not open the door; and I again ran back to my bed, and instinctively pulled over my face the thick coverlet, to protect it from the falling fragments.

Up to this period I had not the most distant conception of the cause of this commotion. The whole had passed in a few seconds, yet each was the effect of each circumstance, that they left on my mind as distinct an impression as if the succession of my ideas had been slow and regular. Still I could assign no reason for it, but that the house was going to fall, till an incident occurred which caused the truth at once to flash on my mind. There stood, in the square opposite the Palazzo, a tall, slender steeple of a Greek church, containing a ring of bells, which I had remarked in the day; these now began to jangle with a wild, unearthly sound, as if some powerful hand had seized the cables below, and was ringing the bells by shaking the steeple. Then it was that I had the first distinct conception of my situation. I found that the earthquake we had talked so lightly of was actually come; I felt that I was in the midst of one of those awful visitations which destroy thousands in a moment—where the superintending hand of God came for a season to withdraw itself, and the frame of the earth is suffered to tumble into ruin by its own convulsions. O God! I cannot describe my emotions when I then saw and felt around me the wreck of nature, and that with a deep and firm conviction on my mind, that to me that moment was the end of the world. I had before looked death in the face many ways, and had seen men then come to familiarise me to his appearance; but this was nothing like the awful thoughts or apprehensions of dying in the common way; the sensations were as different as an earthquake and a fever.



## GEOLOGICAL SOCIETY OF LONDON.

ADDRESS OF THE PRESIDENT AT THE ANNIVERSARY MEETING.

(Continued from No. 28.)

I have already had occasion to allude more than once to the name of Agassiz, on whom the council have this day conferred the Wollaston Medal. I may say with pleasure, that in his second visit to England, as in that of the preceding year, he has given an impulse to the study of fossil remains in various departments which will long be felt in this country. It is not merely sound knowledge which he has freely communicated to all who have enjoyed his society, but what is even more lasting profit, a generous enthusiasm for the study of every department of natural history, and particularly of fossils. The great work on which he is now engaged yields not in importance to any that has ever been undertaken for the illustration of organic remains; and the progress which he has already made at so early an age, holds out the most encouraging prospects of his future success.

When we consider the strong ties of affinity which unite together all animals of the vertebrate classes, and reflect that man himself, viewed in reference to his organization, belongs to this great division of the animal kingdom, we cannot but feel the highest interest in tracing the remains of the vertebrate animals through geological formations of every age, from the newest to the most ancient. In a small part of Europe alone more than 800 species of ichthyolites have already been determined. They are distributed through strata of all epochs; no less than fifty-four species have already been discovered in the carboniferous rocks, and five or six have been met within the still older Silurian formations.

The museums of Great Britain alone have afforded to Mr. Agassiz no less than 500 new species of ichthyolites, fifty of which have been added since our last anniversary. He had previously pointed out as a general law that particular generic types are strictly confined to certain groups of strata, and it is remarkable that so vast an accession of new species offers but few exceptions to the rule. In the chalk two species have come to light belonging to genera before observed in the oolite series only, and a distinct species of one of these genera extends even into the lower or Eocene tertiary deposits.

The labours of Mr. Charlesworth have thrown much light on the structure of the crag of Suffolk and Essex, and on the fossils of that deposit. He proposes to divide the crag into the upper or red crag, and the lower or coralline crag, the last of which consists for the most part of calcareous sand, derived chiefly from the decomposition of zoophytes and shells, and in which many very perfect corals and testacea are preserved. Among other places this coralline crag may be well examined at Fattlingstone, Ramsholt, Orford, and Aldborough. It is now many years since Mr. Wood, of Heskerton in Suffolk, formed a large collection of crag fossils, amounting in number to no less than 450 species of the classes Annulata, Cirripedia, Conchifera, and Mollusca. Out of 370 species of shells found in the lower crag, Mr. Wood identifies 150 with those found in the red crag. Of these 150 species, common to the two deposits, Mr. Charlesworth suggests that many may have belonged to the lower bed, and have been washed into the newer one, in the same manner as some fossil shells of the chalk have been evidently imbedded in the crag.

Such accidental mixtures have doubtless occurred, and they have been occasionally remarked by geologists in other places under analogous circumstances. But I continue to believe that these upper and lower divisions of the crag should be referred to the same geological period. The determination of that period, or the exact place which the crag should occupy in the chronological series of European strata is a more difficult question. When I first submitted 111 species of crag shells to the examination of M. Deshayes, he was of opinion that sixty-six of them were extinct, and that the others belonged to recent species, now inhabitants of the German ocean. I lately laid before him sixty species from the Coralline crag, with which Mr. Charlesworth had favoured me, and he was still of opinion that the proportion of recent species was equally great.

But I should add that the suits of individuals of each species were not so full and complete as might have been desired, to enable these identifications to be placed beyond all doubt. Dr. Beck has lately seen 260 species of crag shells in Mr. Charlesworth's cabinet in London, and informs me, that although a large proportion of the species approach very near to others which now live in our northern seas, he regards them as almost all of distinct species, and unknown as living. Both he and M. Deshayes have declared the shells to be those of a northern climate, and according to Dr. Beck the climate may even have resembled that of our arctic regions.

In regard to the discordance in the results at which these eminent conchologists have arrived, it may arise not only from the unequal opportunities which they have enjoyed of examining the necessary data, but also, in part, to the different estimate which they have formed of the amount of variation necessary to constitute a distinct species. One example will sufficiently illustrate my meaning. Those naturalists who agree with M. Deshayes in referring all the living varieties of *Lucina divaricata* brought from different countries to one and the same species, will identify many more fossils with recent shells than those who agree with Dr. Beck in dividing the same recent individuals of *Lucina divaricata* into six or eight distinct species. Provided, however, each zoologist is consistent with himself, and provided the distinctive characters relied on as specific by each are commensurate one with another, no confusion will arise.

In reviewing the proceedings of the society during the last year, I find that the remaining memoirs, numerous as they are, may be all referred to one great class of subjects, for they either relate to changes now going on upon the surface of the earth as attested by man, or to geological proofs of similar changes since the rivers, lakes, and seas were inhabited by the existing forms of testacea. Under these heads I shall be led to consider the effects of modern earthquakes in upheaving and depressing the land; the gradual rising of land in one region, and the lowering of its level in another; the rolling in of great waves of the sea upon the coast during earthquakes; the transportation of rocks by floating ice; the signs of upheaved beaches containing marine shells; erratic blocks; alluvial deposits of different ages; and other kindred topics on which a variety of new facts have been collected.

The last year has been signalized in South America by one of those terrific convulsions which have so often desolated the western coast since the discovery of the New World. A brief notice of this catastrophe was sent me by Mr. Allison, written immediately after the event. He mentions that on the 30th of February, 1835, when Concepcion, Chillan, and other towns were shrouded in ruins, the sea first retired from the shores of the Bay of Concepcion, and then returning in a wave about twenty feet high, rolled over several of the towns, and completely destroyed whatever the earthquake had left uninjured. He also states that the coast of the bay was reported to have been heaved up, and that a rock off the landing-place at the port of Talcahuano, which before the shock was nearly level with high water, stood afterwards three feet above that mark. Large fissures were made in the sands, and water burst from some of them.

In these and other particulars Mr. Allison's letter agrees with the more circumstantial account sent to the Royal Society by Mr. Caldehough, who was resident at Valparaiso, but who drew his information in great part from eye-witnesses. He mentions that a great number of volcanoes of the Chilean Andes were in a state of unusual activity during the shocks, and for some time preceding and after the convulsion. Among others, Osorno, of which the cone rises 3,900 feet above the sea, and which is situated on the mainland north-east of the island of Chiloe was in eruption, lava being seen to flow from its crater. Several others are also noticed, and the lava emitted from some of them is stated to have covered an area eight leagues in circumference, and to the depth of three yards and a half. The ashes reached to the distance of 300 leagues. I refer you to these statements, because it is rare to meet with any recent description of the emission of lava and ashes from the high peaks of the Andes.

The same writer was informed that the strata of clay-slate, forming the nucleus of the Bay of Concepcion, were elevated from three to four feet, whereas the rise at San Vicente, south of Talcahuano, amounted to only one foot and a half. Mr. Caldehough was also informed that the island of Santa Maria, in the Bay of Concepcion, was upheaved about eight feet.

At the same time the island of Juan Fernandez, distant 360 miles from Chile, was violently shaken and devastated by a great wave. A dense column of vapour issued from the sea about a mile from the coast, and flames were seen at the same spot in the night which illumined the whole island. At this point in the sea whence the flames were emitted the depth of water was ascertained to be no less than sixty-nine fathoms.

At a court-martial, lately held at Portsmouth, in consequence of the wreck of the Challenger frigate on the coast of Chili, in May, 1835, some notes of Capt. Fitzroy were read, and afterwards communicated by Capt. Beaufort to the society, in which he describes some remarkable alterations produced by the earthquake of February in the direction of the currents in the Chilean ocean. A more detailed account of the convulsion has just been received at the Admiralty from the same officer, with a sight of which I have been disappointed, but no allusion is here made to the currents. There are, however, together facts perfectly new, and of the highest importance, attested in this memoir, and as they come from an observer of great experience in hydrographical surveying, who examined the Bay of Concepcion immediately after the shocks, they will remove all doubts from the minds of those who have questioned the power of earthquakes to cause the permanent upheaval of

to twenty feet, although they rose to much greater heights when they rushed upon a sloping beach. During the shocks the earth opened and closed rapidly in numerous places. The direction of the cracks was not uniform, though generally from south-east to north-west. The earth was not quiet during three days after the great shock, and more than three hundred shocks were counted between 20th February and 4th of March. The loose earth of the valley of the Bio Bio was every where parted from the solid rocks which bound the plain, being separated by cracks from an inch to a foot in width.

In the Bay of Concepcion two explosions or eruptions were seen in the sea while the great waves were coming in. One beyond the island of Quiriquina appeared to be a dark column of smoke in shape like a tower; another rose in the Bay of San Vicente like the blowing of an immense imaginary whale. Its disappearance was followed by a whirlpool which lasted some minutes. It was hollow, and tended to a point in the middle, as if the sea was pouring into a cavity of the earth. The water in the bay appeared to be every where boiling, bubbles of air or gas were rapidly escaping, and dead fish were thrown ashore in quantities.

For some days after the 20th of February, the sea at Talcahuano did not rise to the usual marks by four or five feet vertically. "Some thought that the land had been elevated, but the common and prevailing opinion was that the sea had retired. The difference gradually diminished, till, in the middle of April, there was only a difference of two feet between the existing and former high-water marks. The proof that the land had been raised exists in the fact that the island of Santa Maria was upheaved nine feet; but of this presently. When walking on the shore, even at high-water, beds of dead mussels, numerous clitons and limpets, and withered sea-weed still adhering, though lifeless, to the rocks on which they had lived, every where met the eye—the effects of the upheaval of the land."

From the above extracts, then, it appears that in the opinion of Capt. Fitzroy, some of the land was first raised in February four or five feet, and that it afterwards gradually returned towards its former level, so that in about two months the temporary increase of its height was diminished by more than one half.

The observations which follow respecting Santa Maria, an island seven miles long and two broad, in the Bay of Concepcion, deserve particular attention, and I shall give them in Capt. Fitzroy's own words; for although in so doing I anticipate a communication which I trust will hereafter be given in full to the Society, I am only supplying the proofs of the elevation which was asserted as a fact in Capt. Fitzroy's notes read before you during the last year.

"It appeared that the southern extreme of the island had been raised eight feet, the middle nine, and the northern end upwards of ten feet. The Beagle visited this island twice, at the end of March, and in the beginning of April. At her first visit it was concluded, from the visible evidence of dead shell-fish, water-marks, and soundings, and from the verbal testimony of the inhabitants, that the land had been raised about eight feet. However, on returning to Concepcion, doubts were raised, and to settle the matter beyond dispute, or the possibility of mistake, the owner of the island, Mr. Salvador Palma, accompanied us. An intelligent Hanoverian, who had lived two years there, and knew its shores thoroughly, was also a passenger in the Beagle. His occupation upon the island was sealing. When we landed, the Hanoverian, whose name was Antonio Vogelborg, showed me a spot from which he used formerly to gather choros by diving for them at low water. At dead low water, standing upon that bed of choros, and holding his hands up above his head, he could not reach the surface of the water. His height is six feet; on that spot when I was there the choros were barely covered at high spring tides."

"Riding round the island afterwards with Mr. Palma and Vogelborg, many measures were taken in places where no mistake could be made. On large steep-sided rocks, where vertical measures could be correctly taken, beds of dead mussels were found ten feet above the present high-water mark. A few inches only above what was taken as spring-tide high-water mark were putrid shell-fish and sea-weed, which evidently had not been wetted since the upheaval of the land. One foot lower than the highest bed of mussels, a few limpets and clitons were adhering to the rock where they had grown. Two feet lower than the same, mussels, clitons, and limpets were abundant."

"An extensive rocky flat lies around the northern parts of Santa Maria. Before the earthquake this flat was covered by the sea, some projecting rocks only showing themselves. Now the whole flat is exposed. Square acres (or many *quadrats*) of this rocky flat were covered with dead shell-fish, and the stretch arising from them was abominable. By this elevation of the land the southern part of Santa Maria has been almost destroyed; there remains but little shelter, and very bad landing. The soundings have diminished a fathom and a half every where around the island."

The author then goes on to inform us that at Tubul, to the south-east of Santa Maria, the land has been raised six feet. At Mocha two feet. No elevation has been ascertained at Valdivia, northward of Concepcion; at Maule, according to the assertion of the governor, the chief pilot, and other residents, the land instead of being elevated had sunk two feet, for they said there were two feet more water on the bar after the shock, and the banks of the river were lowered. Capt. Fitzroy, however, suggests that a rush of water might have shifted the loose sands of the bar; so that he doubts the subsidence at Maule, and only feels certain that the land had not risen there."

It is scarcely necessary for me to advert to the striking analogy of the phenomena observed by Capt. Fitzroy, and those which were formerly described by Mrs. Maria Graham (now Calcott), and published in our Transactions, respecting the Chilean earthquake of 1822. The coast of Valparaiso, Quintero, and other places, was then stated to have undergone unequal elevations, the greatest amounting only to a few feet, and banks of sea-shells were laid dry above high-water mark. But these statements, given on the authority of Mrs. Graham's personal observation, and confirmed by others to which I shall presently allude, have been met by a direct counter-statement, so circumstantial and explicit as to deserve the fullest consideration. Mr. Cum-ling, well known to you by his numerous researches in conchology, declares that being at Valparaiso before and during the earthquake of 1822, and residing there constantly until 1827, he could never detect any proofs of the rise of the land, although his pursuit of conchology and natural history in general caused him to visit frequently the rocks and inlets with which the northern and southern parts of the bay abound. These rocks were covered with fuel, patella, clitons, balani, &c., yet he never perceived the least difference in their appearance, from the date of his arrival to his finally quitting Valparaiso, nor observed any trace of them except in situations covered by the tide. He also remarked, that the water at spring tides arose after the earthquake to the same point on a wall near his house which it had reached before the shocks. He imagines that the idea that a change had taken place in the relative level of land and sea originated in the grain of land opposite Valparaiso, occasioned by the accumulation of detritus at points where the tide had flowed previously to the earthquake. Mr. Cum-ling first heard of the notion of the land having been elevated at Valparaiso, when Mrs. Graham's paper, read to the Geological Society in 1824, was talked of at Valparaiso. Neither he nor his friends were then able to subscribe to the opinion expressed in that communication.

On the other hand, Lieutenant Freyer, R.N., in a letter read to you during the last session, observes, that being at Valparaiso after the earthquake of 1822, he saw a shelly beach to the east of the town, above the reach of the tides; and rocks, which was pointed out to him as being less under water than it had been before the convulsion. Dr. Meyen, also a Prussian traveller, who visited Valparaiso in 1831, says he examined the coast there, and found appearances in corroboration of Mrs. Graham's statements. I may also repeat what I have elsewhere recorded, that some years after the event I applied to Mr. Cruickshanks, an English botanist, who resided in Chili at the time of the earthquake, whether he had seen any signs of the alleged change of level. He said, that he examined the coast at Quintero after the shocks, and satisfied himself that it had been uplifted several feet, and that the fishermen told him that the ocean had gone down, and was lower than before; in confirmation of which they pointed to some rocks of greenstone at Quintero, a few hundred yards from the beach, which were always under water previously to the great shock of 1822, but were afterwards uncovered when the tide was at half ebb.

Without pretending that I can reconcile this contradictory evidence, I may suggest that some discordance in the accounts may have arisen from a want of uniformity in the movement at different places, and still more from a subsequent sinking down of some of the land which was first raised, in the manner described by Capt. Fitzroy, as having taken place near Talcahuano in the spring of last year. In perusing Mr. Cum-ling's account, we must all feel that the author has had no object in view but that of establishing the truth; and the doubts which he has raised will call for a reinvestigation of the phenomena; but after hearing all objections, even before the late convulsion of 1835, I expressed myself satisfied with the proofs in favour of the elevation of 1822. If I had still cherished any scepticism, it would now be removed by the coincidence of the facts related by Captain Fitzroy. To suppose that a set of imaginary phenomena, which appeared at first sight very improbable, and which no geologist could explain, should have been invented in Chili, in 1822, by several intelligent observers; and that thirteen years afterwards nature should realize, in the same country, the same phenomena, or others strictly analogous, so as to lend countenance to all the previous misstatements, is to imagine a com- bination of circumstances almost as marvellous as the upheaval of a continent itself.

We are indebted to Mr. Woodhouse Parish for a collection of historical notices respecting the effects of the earthquake waves of the Pacific, which have repeatedly caused great inundations on the coast of Chili and Peru.

\* Since the above was written, the whole memoir has appeared in the "National Magazine" for March, 1836.

The earliest date to which he has traced back these memorials is the year 1582. The sea usually retired in the first instance, and then rolled in upon the land, carrying ships far inland, and levelling towns to the ground. Such floods must have left great banks of sand and gravel, mingled occasionally with broken and entire shells, upon dry land, considerably above the level of the highest tides, but they will by no means account for the very elevated position of recent marine shells on various parts of the maritime country of Patagonia, Chili, and Peru.

## LAPLAND.

(Continued from No. 41.)

In passing down the Wargoe Sound, you leave the large island of Seyland on the right; the mountains on this island are some of the loftiest in Finnmarken, being, according to Von Buch, about 4000 feet. There are but few inhabitants on this island, owing to its precipitous character. On the top, stretching in a S. S. W. direction, is a glacier about seven English miles in extent; you just catch a glimpse of it as you are sailing past Bekke fiord. The channel down this sound does not extend beyond four miles in breadth, but the moment you have passed it, and entered the Alten fiord, it widens, and becomes in places full seven miles across, free from all danger, so that vessels may navigate the passage in perfect safety.

At the bottom of this fiord is the village or hamlet of Alten and Boscop, situated on an extensive plain in a valley which extends about twenty miles in a S. S. E. direction, and varying in width from three to ten miles. On the eastern side of this valley the Alten river is seen meandering its serpentine course, until it empties itself into the fiord. It takes its rise in the neighbourhood of Keino, a distance of about 140 miles. It is navigable with boats for about twenty miles. The settlement of Alten is composed chiefly of Quens or Finlanders, who form a population of about 800 individuals; they are the only inhabitants who follow agricultural pursuits, but, as may naturally be supposed, their labours are but ill-requited. Barley, however, does sometimes ripen: potatoes they generally have crops of; but their chief pursuits is hay-making, milk forming a principal article of their food. Alten may be considered the Montpelier of Finnmarken; and it is extraordinary, that while the inhabitants skirting the coast and at Hammerfest have thick boisterous weather, with all the concomitants of fog and rain, Alten presents a clear and serene atmosphere.

The extensive islands with their high and lofty mountains, which more particularly cover this part of the coast, stretching in a S. S. W. direction, interrupt the low clouds as they drag in from sea, and forming at the same time a barrier to the adjoining continent: a striking difference in the temperature is the consequence. In the winter it is again considerably colder than on the islands; when the thermometer at Alten is ranging from sixteen to twenty degrees below zero of Reaumur, it will seldom exceed eight to ten degrees at Hammerfest. Equally as striking a difference is to be observed in the face of the country. The coast and islands generally present one vast field of desolation, every thing is upon an awfully grand scale. It is scarcely possible to imagine scenery equally vast and desolate, apparently interminable, and unfit for the abode of any living being. Perpendicular and inaccessible rocks present themselves on every side, with scarcely a vestige of vegetation, except here and there a little moss, or a solitary stunted birch tree. Huge and endless masses of rock are collected, and towering one above the other on the beach in most fantastic forms, and scarcely seeming to hang together. The scene changes as you pass the outward range, although still on a grand and stupendous scale, it assumes greater regularity, its valleys are richly clothed with verdure, birch and fir trees grow to a considerable size, and animated nature every where appears contented and happy.

The inhabitants are composed of the original stock—the Laplanders, who are the aborigines, and are divided into two classes, the sea and mountain Laplanders: the former support themselves by the fisheries; the latter, like the ancient Scythians, wander from place to place with their herds of reindeer, and live both summer and winter in tents. The sea Laplander, on the contrary, selects a small favourable spot of ground near the sea, eligible for the fisheries, and with no other assistance but that of himself and family, builds a turf hut, in which, in company with his sheep and goats, he resides contented and happy, and with a greater degree of practical liberty than you will find in more favoured climes. The interior of few English cottages will exhibit beings so light of heart as in the earthen gamme or hovel of the Laplander. If labour was the curse inflicted on fallen man, are not they the happiest who feel the least of it? The remainder of the population are settlers, and who by far are the most in number, are Quens or Finlanders and Norwegians, who support themselves chiefly by the fisheries, and the former by cutting wood and timber, and a considerable salmon fishery conducted in the Alten river. Since the Alten copper-works have been so extended, although few are directly in the service of the works, most indirectly derive some benefit by supplying the labourers at the mines with necessities, and a very general amelioration is perceptible in their condition; they always were, however, a happy and independent race, although docile and manageable when mildly treated. Brought up in small societies, every man's thoughts and conduct is open to his neighbour, a unity of feeling is the consequence, unknown to more thickly populated places; but a spirit of independence is engendered, rather striking to a stranger, and even irritating, as occasionally he finds difficulty in getting work done for himself, as they will only do that which suits themselves. But is not this as it ought to be? It is a rebuke to the love of domineering, from which human nature is never exempt. May we not trace the deterioration of morals so generally observed in the labouring classes in our populous states to this cause? There the workman virtually becomes a slave, or at most has the option of changing one petty tyrant for another. Treat a man as he ought to be, as a creature worthy of respect and esteem, and his own just pride becomes concerned, that he does not forfeit what is dearer to him than life and property.

Alten is the place of residence of the shirrif of the district: two traders are likewise located there, who supply the inhabitants with luxuries and the more necessary articles of life. Lately the Government have ordered the sutmand's house, an extensive new building which has not yet been occupied, to be converted into an hospital, more particularly for the reception of chronic diseases, and have endowed it with an ample income for its support. They have likewise ordered the sum of \$500 per annum to be placed at the disposition of the authorities, to be appropriated as they may think fit among new settlements, as a stimulus to exertion.

(To be continued.)

## NEW ACID OF BROMINE.

[From the London and Edinburgh Philosophical Magazine and Journal of Science.]

M. Eugene Peligot is engaged in determining the action of chlorine, bromine, and iodine, on salts formed by the organic acids with some of the metallic oxides, and has already arrived at results interesting both from their novelty and from the generalisation they appear to present. When dry benzoate of silver is acted on by bromine it is decomposed, and bromine is absorbed in large quantity. There is produced bromine of silver, and a new acid which resembles benzoic acid in some of its physical properties, but differs extremely in its composition. It contains, besides the elements of benzoic acid, all the oxygen of the oxide of silver, and an atom of bromine. It may be obtained anhydrous by treating the products of the action by dry sulphuric ether, which dissolves the acid, and leaves the bromide of silver.

At ordinary temperatures this acid is solid, but melts a little below the boiling point of water; slightly soluble in cold, but extremely so in boiling water, which upon cooling deposits the greater part of it: it burns with a flame edged with green, indicating the presence of bromine, which could not be recognised by a solution of nitrate of silver, this not precipitating with it; it forms crystallizable salts with oxides, in which the oxygen of the acid to the oxygen of the base is as 4 to 1.

M. Peligot has endeavoured, without success, to form an analogous acid by means of chlorine; the action is very violent, and inflammation and complete destruction of the salt ensues. This happens with bromine if placed in contact with the salt in a fluid state; it must be acted on by passing the vapour of bromine slowly into it, which will be absorbed. The action of iodine differs from that of bromine, for it forms both iodide and iodate of silver; but the acid has not yet been sufficiently examined to determine its nature.

The action of bromine on benzoate of silver is, moreover, not a particular action caused by the nature of benzoic acid, for it acts in a similar manner on salts formed by acids which appear to be less disposed to superoxygenation, as the oxalic and acetic acids, and every thing tends to the belief that the mode of action of this body will become general.—*L'Institut*, 13 Feb. 1836.

SCALES OF FISHES.—A. M. Duménil, of Wurster, states, that according to his observations, the metallic lustre of the scales of fishes is due to the presence of the purest silver, and that the 1,200th part of a grain of silver is contained in the scale of a carp.



## PARLIAMENTARY SUMMARY.

## HOUSE OF LORDS.

MONDAY.

The South Eastern Railway Bill was read a second time.—Lord LYNCHURST gave notice that on Thursday week he should move the second reading of the Prisoners' Counsel Bill.—The Marquis of LANSDOWNE brought in a Bill for the regulation of the Universities in Scotland, and gave notice that he should move the second reading on Monday.

TUESDAY.

The royal assent was given by commission to the Consolidated Fund Bill, the West India Indenture Bill, the Abolition of Slavery (Jamaica) Bill, the Seamen's Fund (Shetland) Bill, and several private bills.—The Postage Duties Bill went through committee.

A petition was presented by Lord LYNCHURST from an Irish priest of the church of Rome, complaining of oppressive conduct of the part of Dr. Croll, the Popish primate of Ireland.

THURSDAY.

The Marquis of CLANRICARDE, at the request of Lord Ellenborough, postponed the second reading of the Marriages (Ireland) Bill, in order to wait for the general message from the Commons.—The Waste Lands (Ireland) Bill, on motion of the Earl of DEVON, was read a second time.

FRIDAY.

Lord LYNCHURST, on presenting a petition regarding the Irish Corporations Bill, thanking their Lordships for the amendments, and praying that they would adhere to them, stated that he would avail himself of an opportunity to explain language of his in that House regarding Ireland, that had been commented upon by one whose weapons were words.—Lord MELMOURNE thought that it required explanation, as it was consistently used by one who had been a Lord Chancellor.

## HOUSE OF COMMONS.

MONDAY.

Mr. S. CRAWFORD and others presented petitions from Ireland (one from Belfast, had 9703 signatures), in favour of the Irish Municipal Corporations Bill, and praying the House to reject the Lords' amendments thereto.—Sir R. HATTON gave notice that he would to-morrow present a petition from Londonderry, praying the House to adopt those amendments of the Lords.—Mr. ROBINSON asked whether the Government had received any intelligence of the Portuguese Government having raised the duty on the importation of British goods into Viana, &c., from fifteen to twenty-nine per cent.—Lord PALMERSTON answered that no intelligence had been officially received of the fact, but he nevertheless had reason to believe that such an advance had taken place.—Sir E. COCHRAN made an ineffectual attempt to bring on his motion for returns of officers dismissed the service without court-martial; an attempt that, the gallant officer said, he had been making for two years.—Lord J. RUSSELL persisted in moving that the House resolve itself into committee on the Births, Marriages, and Deaths Registration Bill. The motion was agreed to, and the House was occupied in the committee for a large portion of the evening.

TUESDAY.

Mr. WALLACE being about to move a resolution regarding the management of the post-office, rates of postage, &c., the CHANCELLOR of the EXCHEQUER said that one or more Bills were now preparing, founded on Reports of the Post-Office Commissioners, and that he had therefore to request that the motion would not be pressed. The Bills would be presented as speedily as possible. Mr. WALLACE withdrew his motion.

Mr. TULK moved his series of resolutions regarding Mr. Buckingham's case, adopting the committee's recommendation for awarding 10,000*l.* as compensation to Mr. B. for the destruction of his property in India, &c.; on which the House divided, and the numbers were—for it, 60; against it, 92; majority against it, 32.

The Bankrupts' Fund Bill was read a third time and passed, and the Cinque Ports Bill went through committee.

WEDNESDAY.

Several petitions were presented against the Lords' amendments to the Municipal Corporations (Ireland) Bill, and two were presented praying the House to adopt them.—Mr. LOCH having presented petitions from merchants, fish-curers, &c., of Calcutta, and other places, for protection of their trade, and complaining of the conduct of Russia on this subject.—Mr. LABOUCHERE stated that it had engaged the attention of the Government, and particularly of the Board of Trade. It was represented that the regulations of Russia were not only unfavourable, but unfair. Inquiries were in progress, with the view of securing redress or remedy.—Mr. C. LUSHINGTON presented a petition from the three denominations of Christians of and within twelve miles of the metropolis—namely, the Presbyterians, the Baptists, and the Independents, for the abolition of church rates.—The Steam Vessels (Thames) Bill was read a second time.—The Bribery at Elections Bill went through a committee, in which some of its clauses were amended or rejected.—The Poor Rate Bill was further considered in committee.

THURSDAY.

Lord J. RUSSELL moved that the Lords' amendments to the Municipal Corporations (Ireland) Bill be taken into consideration. His lordship prefaced with saying that the Ministers could neither consent to barter away their own privileges, nor those of the people of Ireland; and that, in resisting the amendments, he considered the House to be on the defensive. He viewed the Bill as returned from the Lords as a new law, not a measure to reform existing institutions, but to destroy them. He should propose to agree to the Lords' amendments partially, but to preserve the principle of the original Bill; and that by retaining the corporations of eleven cities and boroughs, besides making some provision regarding Carrickfergus. As to the transfer of power respecting the corporation property to commissioners, to be named by the lord-lieutenant, he could never consent to any such change. He declared, that if they wished peace in Ireland, there must be the same justice awarded to it that had been conceded to Scotland and England.—After speeches for and against the measure from Sir W. Follett, Mr. S. O'Brien, Mr. Ewart, Mr. Ward, Colonel Conolly, Lord Clements, Captain Berkeley, Mr. Grove Price, Mr. Hamilton, Mr. O'Loghlen, Mr. Shaw, Mr. Callaghan, and Mr. D. Browne, the debate was adjourned till to-morrow.

FRIDAY.

Mr. BOWEN presented a special report from the South Durham Railway Committee of rather a novel character, setting forth that two members of the committee, Mr. Wason and Sir F. Trench, had fallen into personal altercation of such a character as to induce the committee to report them and their conduct to the House. He moved, in accordance with the wishes of the committee, and the practice in such cases, that Mr. Wason and Sir F. Trench do forthwith attend in their places.—They were ultimately ordered into custody.—The debate on the Lords' amendments to the Irish Corporations Bill was resumed, and occupied the remainder of the evening. Among the speakers were Mr. Shell, Sir R. Peel, Mr. O'Connell, and Lord Stanley, who closed the debate. The House, at three o'clock, divided. The numbers were—for the rejection of the Lords' amendment of the fourth clause, 324; against it, 238. Majority for its rejection, 86.

## PROCEEDINGS OF PARLIAMENT RELATIVE TO JOINT STOCK COMPANIES.

FRIDAY, JUNE 3.

Manchester and Cheshire Railway Bill.—Reported. Report to lie on the table, and to be printed.

South Durham Railway Bill.—Time enlarged for report till Thursday next.

MONDAY.

Dublin and Drogheda Railway Bill.—Committee revived: leave to sit to-morrow.

Glasgow and Falkirk Railway Bill.—Three petitions of owners and occupiers of lands, houses, or premises, through which the railway is intended to pass, complaining of the non-compliance with the standing orders: referred to the committee on the bill.

London and Blackwall Railway Bill.—Petition of inhabitants of messuages, lands, and hereditaments, in the parish of St. Anne, Middlesex, against the bill: referred to the committee on the bill; counsel ordered.

South Durham Railway Bill.—Petition of inhabitants of Whitley in favour of the bill: ordered to lie on the table.

Dublin and Drogheda Railway Bill.—Petition of landowners and inhabitants of Clontarf against the bill: referred to the committee on the bill; and counsel ordered.

TUESDAY.

North of England Railway Bill.—Petition of gentlemen, landowners, and others, of Easingwold, in favour of the bill: ordered to lie on the table.

London and Croydon Railway Bill.—Petition of Edward Ayshford Sanford, Esq., against the bill: ordered to lie on the table.

London and Brighton Railway Bill (Stephenson's line).—Petition of inhabitants of Steyning against the bill: referred to the committee on the bill.

Durham (South West) Railway, and South Durham Railway Bills.—Petition of inhabitants of Norwich in favour of the bill: ordered to lie on the table.

Glasgow and Falkirk Railway Bill.—Petitions of heritors, tenants, and inhabitants of Cumberland; proprietors of lands and heritages in Old and New Monkland and Cadder (two petitions); and owners of lands and heritages in Cumberland and Falkirk: referred to the committee on the bill.

Mr. Speaker reported the royal assent to the Birmingham Coal Company Bill; the Imperial Continental Gas Association Bill; the Brading Railway Bill; Carlisle Dock Bill; and the Dundee Harbour Bill.

London and Croydon Railway Bill.—Report further considered; amendments agreed to; and the bill ordered to be ingrossed.

Thames Haven Railway and Dock Bill.—Report further considered; amendments agreed to; clause added; and the bill ordered to be ingrossed.

Tyneside Railway and Harbour Bill.—Further consideration of report deferred till Tuesday next.

Preston and Longridge Railway Bill.—Report further considered; amendments agreed to; clauses added; and the bill ordered to be ingrossed.

WEDNESDAY.

Edinburgh, Leith, and Newhaven Railway Bill.—Petition of inhabitants of Edinburgh against the bill: ordered to lie on the table.

British North American Bank Bill.—To enable the proprietors or shareholders of a company, called "The Bank of British North America," to sue and be sued in the name of the secretary for the time being of the said Company," presented, and read first time; to be read second time.

South Durham Railway, and Durham (South West) Railway Bills.—Petition of sheriffs of the city of London, complaining of the opposition offered to the said bills by the great coal-owners, as tending to maintain a monopoly in coal, and praying for inquiry: referred to the committee on the coal trade.

THURSDAY.

Thames Haven Railway and Dock Bill.—Read a third time; clauses added; amendments made; and the bill passed.

Durham (South West) Railway Bill.—Reported. Report ordered to lie on the table, and to be printed.

Dublin Steam Packet Company Bill (No. 2).—Petition of merchants, ship-owners, and inhabitants of Greenock, against the bill: ordered to lie on the table.

## ORIGINAL CORRESPONDENCE.

## THE COAL TRADE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Having in your valuable paper of this day again observed a lengthy epistle, containing the incursions of my old antagonist A. B., may I be allowed, through the same medium, to trespass for a few moments, and endeavour, as far as my humble capacity will allow me, to set him right on one or two points, on which apparently carried away by the ardour his subject inspires, A. B. has been led into what I cannot but deem gross misrepresentations. A. B. states that the Common Council of London, in particular, having taken up the subject, has induced him again to enter the field, as a sworn enemy to coalition and monopoly. Now A. B. must have a far higher opinion of that "proverbially enlightened body" than the inhabitants of the metropolis, to notice their speculations on any subject. He furthermore states, that on visiting London in the "middle of winter," he was sensibly struck by what he evidently considers the misery resulting from want of fire; and although A. B.'s observations appear to have extended no farther than the "lodging-houses" of the metropolis; on that, and that alone, he ventures to build an hypothesis, and consider, that what he witnessed in evidently one of the lower grade of those houses, extended to all stations and all classes. He then wishes (with very kind intentions, no doubt,) to transplant us to his own district, where we might see the comfort arising from a "good fire," conceiving that the "sight" alone "would" double our consumption when we got back. Now this will do with persons who live in remote districts, and who have no means of judging of the truth, or the contrary of an assertion of this nature: pity will be the predominant feeling in their minds towards the destitute state of the inhabitants of the metropolis; and although in the port of that metropolis there were last year sold 2,298,812 tons of coal; they no doubt will consider we were, during the inclement weather, perishing with cold.

In opposition to this I will state, that in no part of England is the poor man better supplied with firing than in its capital; he cannot expect to get it so cheap, or at any thing like the price at which the inhabitant of a coal district is enabled to procure it; but his rate of wages here is far higher than it would be there, and what may be considered a trifling disadvantage on one side, is counterbalanced by many and great advantages on the other.

I think A. B. stated, some time since, he was "not" acquainted with the coal trade; he, nevertheless, in his last epistle, speaks very confidently as to the large profits derived by the London coal-merchants. I would for a moment recall his attention to his former assertion, and state, that no part of his letter proves his ignorance of the subject on which he is writing more than this observation; and, in furtherance of this idea, he proposes the formation of a public company for retailing the coal to the mass of consumers: he adds, "what says C. C. to this?" My answer is, I, in common with every body else at all acquainted with the trade, laugh at it, as utterly impracticable and ridiculous, and not possessing one of those claims on public feeling that even the most absurd bubbles of our own day can argue for themselves. The only scheme to which in my mind A. B.'s "Retail Coal Company" has any affinity, was one started, amongst many others, a short time subsequent to the South Sea scheme many years ago, "for making deal-boards out of sawdust."

Since the period at which I first addressed you, several companies have been formed, and among others, the "Durham County Coal Company," who state in their prospectus, that they have purchased several current-going collieries, and intend to open out new fields of coal; but, with very different views of the subject to A. B. (doubtless because they do not understand it so well), the gentlemen forming the committee of direction come into all the regulations at present existing for the management of the London trade; and without which they know their company would not last a month.

Other associations have been started; one called the "Middlesex Coal Association;" what they purpose doing, or what wonders they mean to achieve, is beyond my ability to discover; however, one thing seems certain, that they mean to destroy the northern monopoly, as it is called, though in what way, I think they would be puzzled to inform us.

And may I ask what benefit A. B., with his visionary schemes of "public-spirited coal companies" means to effect towards the suffering population of London? Does he mean us to have coals again at 15*s.* or 16*s.* per ton, as in 1833? Does he think his "public-spirited coal company" (supposing it was in their power to destroy all wholesome and existing regulations of the trade) would pay a very large dividend to the unhappy shareholders at that price? or does he think that the reduction of 6*d.* or 1*s.* per ton on the price of coals, (I deny that with a greater reduction than that on the present price any company would pay, after their expenses, a common interest of four per cent. for money sunk,) "the consumption of this great city would be doubled one-half?" No; the only parties that would be benefitted by a company at all, would be the directors and paid officers. They would, doubtless, state to the public what an eligible investment it was for capital, and what large and sure returns it would undoubtedly make—to whom? Why to themselves alone; and that this would in the long run be found to be the case, is the opinion of all the parties practically connected with the coal trade here; and as well as

June 4. Your very obedient servant, C. C.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—On reading your last impression, I was much struck with a proposition by a correspondent of yours (who signs himself A. B.) for the formation of a company for retailing the article of coal, in order that the poorer folk of London might be able to rejoice in having a good fire, a luxury at present almost unknown to the greater part of them, and totally so to the remainder. Now this statement is not founded in truth; he, himself, confesses his ignorance of his subject; how, then, can he boldly stand forward as the champion of a scheme to remedy an evil hitherto undiscovered. If A. B. had taken the trouble to investigate the matter, your readers would not have to complain of the infliction of a column and a half of such tedious verbiage; and he would have been spared the remarks which truth will call from the enlightened part of your readers. It has fallen to my lot, Mr. Editor, to be almost a constant eye-witness of the distresses of the poor, and allow me confidently to state, that want of firing is not one of the miseries which they have to endure; they can procure more than 7*lbs.* of coal for the sum of 1*d.*; and perhaps A. B. will answer this question—Could the company (about the formation of which, by-the-by, he seems to be interested enough to make one believe he had some private end to gain)—could they afford to retail their coals at a lower rate, after paying the expenses which they must necessarily incur?

Besides all this, sir, in establishing this company he will have to overturn the regulations at present enforced by the coal committee. This is impossible; in fact, the idea of A. B. is altogether so preposterous, that it would be folly to attempt to reason further upon any thing so false.

I have now done with A. B., and would advise him never again to make himself ridiculous by writing about that of which he does not understand one iota. The only feeling I can entertain towards him is one of

pity, that his time and talents should have been employed in giving publicity to so much falsehood, and directing public gaze to such ill-timed observations.

I am, Sir, with great respect,  
Yours CONSTANT READER.

## EAST CORNWALL SILVER MINES.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—I have seen in your last week's paper Mr. Percival Johnson's reply to my charges against him relative to his conduct at the late East Cornwall meeting, and surely a more weak and unmanly effort to creep out of the disgrace he had fallen into on that occasion was never attempted. It will be evident to every reasonable person that if he could have confuted any part of the accusation he certainly would have done so.

He says, "with a person evidently possessing so little information on scientific knowledge upon the subject he writes, I decline entering into any controversy." Did you ever, Mr. Editor, hear such a lame excuse? What! is the truth of no force unless it comes scientifically? This is, indeed, the "march of science" with a vengeance.

I accused Mr. Johnson of lending himself to a party, and making declarations which he knew, or ought to have known, were utterly false, and stated the matter circumstantially, so that he might have a fair opportunity of refuting the charges, if he had any grounds for so doing. In this you and the public will see that he has completely failed; and although he has endeavoured to shelter himself under the cloak of science, it will be found too flimsy a protection to defend him from being pierced by the flaming sword of truth.

But as Mr. Johnson has taken his stand so boldly on scientific ground, I cannot yield even that field to him without one decisive struggle. He must first prove that I am so "evidently deficient" on this point as he would have the world believe, and I shall give him a fine and immediate opportunity for so doing.

My practice in assaying of ores has been much greater than Mr. Johnson's; therefore, if I am inferior to him in this important branch of my profession, I deserve, and will submit, to be most severely punished. To bring this affair at once to an issue, I now challenge Mr. Johnson to compete with me in making assays on every species of the ores of silver, copper, tin, lead, antimony, and iron, for a wage of one hundred guineas. Expecting Mr. Johnson's reply and acceptance,

I remain, Sir, your very obedient servant,  
JOHN BUDGE.

Callington, June 7.

## ON SCIENCE, AS APPLIED TO MINING.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Many years have not passed by since tin was considered the only metal worth searching for in Cornwall. Then, if a miner chanced to find, as we must presume he frequently did, mass of ore, no matter what its quality or character, so that it bore a resemblance in colour to the staple commodity, it was at once pronounced to be tin—to doubt or question his judgment was but little better than heresy, and the doubter was often met by the doubter with the following well-known query, "Well, if 'tisn't tin, what is it?" This was a poser—the ore must be tin, for it could be nothing else. Thanks to science and the march of intellect, times have changed—the miner has become somewhat of a mineralogist; that which was once supposed to be mundane, and therefore worthless, he now finds to be yellow copper—rich grey-black and red copper ores have supplanted the old names of iron and black jack, &c. stored on them, and the common galeas, or lead ore, has been found to contain a large portion of silver. The latter has also been found, in its native state, as well as combined with other metallic substances, and in many districts native gold has been discovered. The miner now knows yellow copper from iron pyrites by difference in colour, form of crystal and hardness; the former yielding to the knife—the latter not. He knows also, that the yellow copper ore of Cornwall produces on an average from thirty to forty per cent.; the grey about eighty, and the red oxide near ninety per cent. of pure copper; but of mineralogy, as a science, he knows very little. By experience and attention he can recognise in the mass such minerals as he commonly meets with; but he is too often unacquainted with their more minute physical or chemical characters, and many substances, valuable to the mineralogist and geologist, altogether escape his attention. Now I consider it essential that all persons connected with our mines should be better informed on this subject, and I beg leave to suggest, that a book in your excellent journal be occasionally devoted to an article or two on mineralogy; it would, I am satisfied, be acceptable to your mining readers, and might be the means of inducing many to become acquainted with that most interesting science. To me its study has been, I may truly say, "a hobby-horse" for many years, and being sometimes engaged in mining matters, I find my knowledge, trifling as it is, of infinite service; and though by residing in London I cannot now avail myself of the opportunity of collecting "at the pit's mouth," as was my practice whilst living in the country, yet I trust that the time may again come when I shall be able to take my ride as heretofore.

Before I conclude I would add another suggestion—that the captains or agents of our English mines should be invited, by special note in the Mining Journal, to communicate to you for publication, the names of the several minerals (earthly as well as metallic) found in the mines under their superintendence; this information would be of no small value to scientific men, and particularly those who have made geology or mineralogy their favourite study. I am, sir, your obedient servant,  
London, 3d June. C. C.

## MINING STATISTICS.—HIMMELSFURST MINE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—I observe in the last number of the Mining Journal, a letter from a correspondent, who signs himself "Sassenach," containing some observations upon a statement of the statistics of the mine of Himmelsfurst, which appeared in one of the early numbers of that publication, and having for its object to "rectify an erroneous statement," presumed "to have crept into your pages."

The article in question having been extracted from a paper of mine in No. VII. of the Mining Review, I beg to trouble you with a few observations on this supposed erroneous statement, which will be found to exist merely in a misapprehension, caused by the article appearing as an extract, and detached from the matter which originally accompanied it.

Your correspondent states, that "you say that the ores of the Himmelsfurst mine at Freyberg, produce from six to seven ounces of silver per quintal; and the natural inference is, that such is the richness of the ore drawn from that great mine; yet it is not so. It is true, that when the ores are sent to the reduction works, they hold that proportion of the precious metal; but they have then been stamped and concentrated to one-twelfth or one-fourteenth of their original weight; and, consequently, the real contents of the ores, as they are raised from the mine, is only about half an ounce in the quintal."

Of this I am perfectly aware, but instead of giving the mean produce of the whole mass of ore extracted from the mine, as your correspondent would have preferred, I adopted the more usual, and, I believe, the more intelligible mode, of stating the produce of the *clean ore*, as is generally done in this country, when speaking of the gross produce of a mine.

In the original article, a comparative statement is given of the statistics of four celebrated mines in Europe and America; and as regards the first on the list, it is expressly stated, that the produce of the *clean ore* was so much per cent., implying, of course, that a similar plan had been adopted with regard to the other three, which are minutely arranged under similar heads of comparison.

On referring to the original article, therefore, your correspondent will find that there is in reality nothing calculated to "mislead the reader," or to require the explanation with which he has favoured you.

The standard of comparison is, indeed, so common, and so generally used, that I am rather at a loss to perceive how any misunderstanding could have arisen, even when the article appeared in a detached form in the Mining Journal.

I am, Sir, yours, &c.

New-road, June 8.

FREDERICK BURN.

FATAL ACCIDENT.—There has been another fatal accident at the Sirhowy works. A young man, only twenty-five, was crushed to death by a fall of rock in the Rane-quarry there—he had finished his labour, and had begun his way home, when he was thus awfully summoned to his long home.

Iron pyrites.

Red oxide of zinc.



## FOREIGN MINING ASSOCIATIONS.

	SECRETARY.	OFFICE.	PART. DAY.	BOARD DAY.	GENERAL MEETINGS.
Anglo-Mexic.	James Farrell	7, St. Helen's-pl.	15th.	1st and 2d Tu.	March 31
Bolivar	Alex. Allen	3, Austin-frs.	1st.	Alt. Th. at 12	3d Thurs. in
Colombian	John Chapman	3, Freeman's-ct.	15th.	Alt. Th. at 2	June & Dec.
New Granada					
Copago	Fred. Grellert	22, Austin-frs.	1st & 3d Tu.	at 12	
General Min.	J. B. Ford	52, Broad-street	15th.	Alternate Tues	
Mexican	J. M. Mande	32, G. Winches-st.	15th.	Monday at 11	1st Thu. May
Nat. Brazilian	B. Mountney	26, Throgmorton-st.	1st Tu.	Wednes. at 1	
St. John d'el R.	J. Luckombe	3, Tokenhouse-yd.	1st Tu.	Alt. Frid. at 12	1st Thu. May
Minas Ger.					
Unit. Mexican	John Mather	13, Old Broad-st.	15th.	1st Wed. and	day before Fri.

## PUBLIC COMPANIES.

	MEETINGS.
Colombian	3, Freeman's-court 16th. 1.
Central Agricultural Society	17th.
Perran Consols.	London Tavern 20th. 1 for 2.
Anglo-Mexican	St. Helen's-place 20th. 1.
Redmoor Consolidated	London Tavern 20th. 12 for 1.
United Mexican	London Tavern 20th. 12 for 1.
East Wheel Strawberry	London Tavern 20th. 12 for 1.

## CALLS.

Albion Copper	5s. 15th June Barclay and Co.
New South Hooe	10s. 15th Stone, Martin, and Co.
Treleigh	10s. 15th Vere and Co.
South Polgooth	10s. 27th 20, New Basinghall-street.
Hayle Railway	5s. 22nd Ransom and Co.
Alten	11s. 20th July Williams, Deacon, and Co.
Cornwall Great United	3s. 4th Masterman, Peters, and Co.

## DIVIDENDS.

Anglo-Mexican Mint	6s. 1st December.
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## MEETINGS OF SCIENTIFIC BODIES

SOCIETY.	PLACE OF MEETING.	DAY.	HOUR.
Royal Geographical	21, Regent-street	Monday	9 P.M.
Antiquaries	Somerset House	Thursday	8 P.M.
Royal	11th	Thursday	8 P.M.

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## NOTICES TO CORRESPONDENTS.

ROYAL IRISH MINING COMPANY.—In reply to a Correspondent we have much satisfaction in informing him we have learned on good authority that the Company have made arrangements for the disposal of the mines, whereby 20s. to 25s. per share may be calculated upon as a return. We congratulate our correspondent on the result.

ST. JOHN D'EL RIV MINING COMPANY.—We must defer until next week, the insertion of the correspondence of this and other companies.

L. N. R. is informed that No. 44, which will appear on the 25th inst., will complete the second volume. The Map of Cornwall, with a Table of Contents and Title Page, will be given in an early number.

PROPOSED ALTERATION IN MODE OF PUBLICATION.—J. B. D. must not arrive at hasty conclusions, the matter is not yet determined upon. We shall not only consult our own interests, but the wishes of friends, in the course we may pursue.

LIVERPOOL CORRESPONDENT.—Will our friend be more punctual. We have no letter this week. Our Liverpool List, therefore, remains the same as quoted last week.

COMPLETE SETS.—We have lately succeeded in making up one or two sets, but are still without copies of Nos. 1 and 2, which we shall be happy to purchase.

REVIEWS.—Notices of several works intended for review are deferred until our next.

WE must decline inserting B's communication, even as an advertisement.

GEOLOGICAL SOCIETY.—We are compelled to defer the report of the meeting until next week.

THE MINING JOURNAL,  
And Commercial Gazette.

LONDON, JUNE 11, 1836.

The mania which has existed for the past few months is at length subsiding, followed, as we are grieved, by a lethargy and apathy on the part of the public, ever attendant on that degree of excitement which has of late prevailed. No longer are Railway Shares in demand; prices are in some instances maintained, from the apprehension on the part of the holder, that to force a sale of a portion of his interest would be to reduce the value of the remainder, from the depreciation which must attend a sale when the market is in so unhealthy a state as it now is. The natural sympathy which pervades the Share Market, as it does that of Foreign Loans, creates also a distrust or disinclination to embark in Mining pursuits; for as we find that with a fall of Spanish, or any other Stock, all Foreign Bonds are affected; so is it with Railway and Mining Shares.

The attempts (many of which have, we are glad to say, failed) to foist on the public, concerns as valueless in themselves, as the projects, have at length disgusted the public; and we hope, ere long, to find legitimate enterprise fostered, and the abortive schemes of the day meet the result they so deservedly merit.

The present moment is one which we consider may be rendered available with advantage to the capitalist, who, without regard to prices in the market, will maturely deliberate on the prospects of the several adventures which have been undertaken within the last twelve months; and having ascertained the competency and respectability of those on whom the management devolves, embarks in the undertaking. There are, we have no doubt, many Companies, whose shares are at a price far below their intrinsic value, inasmuch that an unfavourable report or disappointment attendant on one mine, is sure to affect the value of others in its neighbourhood, and occasionally even in the county in which it is situated, not to observe on the state of the market.

In thus observing upon Mines and Mining companies, we cannot but remark on the proceedings of the "East Cornwall Mining Association," and as it affords an opportunity of adverting to the rules, regulations, and system of Scrip Companies, we avail ourselves of the present occasion to direct the attention of our readers to the subject. It will be remembered that some six weeks or two months since, a preliminary meeting was held, when a requisition was issued, calling on the directors to convene a meeting, for the purpose of considering the subject. The meeting was accordingly held, and certain resolutions were passed, and the report of the directors was received, approved, and

printed. More than a fortnight has now elapsed since the meeting was held, and yet no report has appeared. Charges were preferred, such as called for inquiry and refutation on the part of those whom, it was alleged, had been guilty of the abuses to which reference was made. Yet the matter is hushed—no report is printed—and thus the resolution of a Special General Meeting of the Proprietors becomes a perfect farce.

We should not perhaps have noticed this particular instance (for we were in the outset averse to the report being circulated, as containing charges which were to form subject matter of inquiry for a committee), did it not involve a principle, which all must admit to be one on which the existence of Scrip Companies depend. Without a deed of settlement, with crude and imperfect rules (for such they are in general) we here find a company, which at a meeting resolve on certain measures, but which measures are not carried into effect by the executive, while the proprietors possess no power to enforce them; hence the deduction may naturally be drawn—if that resolutions carried, after a lengthened and animated discussion, can thus be shelved, it is a mere mockery to hold meetings, as the same course may be pursued in one case as in another, however important may be the tenor of the resolution which may be passed.

We now take leave of the subject, expressing our sincere hope, that ere many months elapse we may find Mining enterprise generally attended by those profits which may naturally be calculated upon, and which are ever consequent on the application of talent, when guided by integrity and economy.

The Coal trade has not only formed a subject of controversy in our columns, but has also been animadverted upon on different occasions, and the "Monopoly," as it is so called, treated on in no measured terms at several public meetings which have been lately held.

We believe that an erroneous opinion is too generally entertained, and that in many instances matters are discussed, and opinions given by parties who have a profound ignorance of the subject, and whose love of justice and patriotic spirit may be said to be confined to their desire to obtain popularity—no matter what means are used, so that the end be obtained.

Within the past few weeks several companies have been formed for working collieries, and for the supply of the London and other markets; and we must confess, although we consider much wrong has been done the coal-owners, that we can see no reason why joint stock associations should not be formed for working collieries as well as mines, iron-works, banks, railways, or indeed any undertaking where a large capital is necessary, and which may be employed not only to the advantage of the capitalist, but to the public, and we believe that in many cases the latter will take the precedence in the advantages that may be obtained.

The increased consumption of coals is in itself a subject of serious consideration; the export of coal from the rivers Tyne, Wear, and Tees, with the contiguous shipping ports, being at the rate of increase, as we are credibly informed, of nearly one million of tons annually; and hence the necessity of fresh pits being opened to supply the increased demand. In London alone the increase will be found to be considerable, as shown by the following official returns:—

In the year 1801, importation	1,031,685 tons.
1825, do.	1,856,606 do.
1829, do.	2,018,975 do.
1833, do.	2,010,409 do.
1834, do.	2,078,685 do.
1835, do.	2,398,812 do.

In the present year, the importation is expected to exceed 2,400,000 tons, while from the great increase of steam-engines, gas-works, and population, the consumption will, in all probability, be considerably augmented.

It appears by reference to the lists published by the Coal and Corn Committee, that there are 150 different descriptions of coal imported for the consumption of the metropolis, which are thus classified:—Best sorts, 20; seconds, 50; inferior, 80. It must, therefore, be apparent, that the consumer uses a larger proportion of the inferior coal to that of the best quality; and if we take the price of the best coal at 21s. 6d. per ton, and that of inferior at 16s., it will be seen there is a difference of 5s. 6d. per ton. Now, as coals are sold in the north by the Newcastle chaldron, of fifty-three cwt., it is clear that the 5s. 6d. per ton difference in the two descriptions of coals is equal to 14s. 6d. per Newcastle chaldron; consequently, the buyer in the north, in paying 28s. 6d. for the best coal to bring to market, can only afford to pay for the inferior 14s. per Newcastle chaldron; and as the cost of working collieries, whether for best or inferior coal differs but little, it is evident that in one respect at least the proprietors of "first quality" have a monopoly, which the establishment of companies, by the outlay of capital, and the opening of new ground, must tend to explode, and thus be beneficial to the public. To effect this, however, the Directors should be well acquainted with the nature of the undertaking they profess to manage, and their attention should be directed to the working of the collieries, and not the shares, while their salaries should be something in proportion to the profits divided between the proprietors. That there is a fair prospect of undertakings of this nature being attended with success there can be no doubt, and they will in all probability have a beneficial effect, more especially so far as the consumer is concerned.

## THE FUNDS.

CITY, SATURDAY MORNING.

The operations throughout the past week call for but little observation. Consols for Account have remained steady at 91½, 92, with but little business doing. Exchequer Bills have continued at our last quotations, 12s. to 14s. premium, and India Bonds 1 dis. to 1 prem. Bank Stock 210½. In the Foreign market but little variation has taken place, and the business has been very limited. Spanish Five per Cents. leave off 40½; at which price, with a slight fluctuation, they have been since our last. The Share Market is in a great degree deserted. Some business has been done in one or two of the Railway Companies; Stephenson's Brighton line having receded to 11½ premium, but have since recovered to 13. London and Greenwich are also heavy, at 5½ premium. In Mining Shares a decline has taken place in the Imperial Brazilian, the last price of which was 29 30 per share. The demand for money in the commercial world continues; on the Stock Exchange, however, it may be said to be rather easier.

## LATEST INTELLIGENCE.

LONDON, JUNE 10.—The Metal Market, though stationary in its prices, may be considered firm, with a slight tendency to advance.

BIRMINGHAM, JUNE 9.—METAL MARKET.—COPPER.—This market has remained steady since our last report, although it is thought that the great advance which has taken place in every department of the metal market has, in some degree, reduced the sales of new copper, as each manufacturer, from being unable to raise the prices of the orders unexecuted, has collected all his scrap and useless patterns to melt, instead of purchasing new metal. An advance in the manufacturers' prices must be made, as, from the appearance of the market, no reduction in the price of ores is likely to take place. The copper, as per our last, 116d.; cake, 118d.; best selected, 120d. SWEETENED remains the same for the present, although our correspondent at Hamburg informs us that the price there is 23l. 16s. 1d.; therefore, when the duty of 2l. is paid on it, and the expense of transit is added from Hamburg to Birmingham, we cannot see how this article can be sold for less than 30l., the present price. Tin has suffered no change since our last, blocks 121l.; refined, 126l.; grain, 121l.; bars, 123l.; ingots, 121l. 10s.

LIVERPOOL COTTON MARKET, JUNE 8.—About 2,000 bales of cotton have been sold to-day, at Monday's prices,—viz. 50 Pernams, at 13d.; 80 Surats, 7½d. to 7½d.; the American from 9½d. to 11½d.; and Orleans at 11½d.

REDEUTH.—See the table of Sales of Ores.

## RE-ESTABLISHMENT OF THE STANNARY COURTS OF CORNWALL.

We have hitherto omitted all mention of the proceedings adopted by the Mine Committee, because we considered it right to permit the members which compose it to discharge the important duties intrusted to them without interference on the part of the press. In common with the county of Cornwall, we reposed unlimited confidence in the zeal and ability of the committee, and we were inclined to allow them to pursue their undisturbed career unshackled and unassailed by the suggestions of criticism.

It is true that reports have reached us of divisions in these councils, and we have long awaited the result of their labours on a question of such vital importance, not only to resident members of the mining community, but more especially to that class who adventure their capital, and stake heavy interests in Cornwall, as "foreigners"—to this class we belong, and the time has arrived when it becomes a positive duty in us to direct the attention of London capitalists to the proceedings of the County and Duchy of Cornwall, on the important subject of re-establishing and extending the jurisdiction of their local mining courts.

All persons seem to be agreed on the expediency, and, indeed, necessity, of tribunals for the cheap and speedy administration of justice in mining affairs. They are founded on principles of convenience and propriety, wholly distinct from the general question of local courts, as advocated by Lord Brougham, on which so many persons entertain different opinions. The only question to be considered, and which, it seems, has occupied the attention of the committee, is the proper mode of constituting the courts.

To us it seems quite clear, that if these courts are to be entitled to public confidence, more especially of the London capitalist, the jurisdiction and practice must be assimilated as nearly as possible to those of the superior courts, and any attempt to introduce anomalous or inconsistent regulations cannot fail to be followed by disastrous consequences, and an entire distrust in their efficiency.

The mining committee appear to have laboured hard to arrive at the best conclusion, and they are entitled to thanks for the great trouble they have taken, and the strong solicitude they have manifested to discharge the duties intrusted to them by the county.

In that feeling of gratitude we fully concur, and we do not now seek to raise frivolous objections to their recommendations, but are willing to accord to them our thanks, though we wholly disagree with them on certain leading principles on which they, or rather a portion of them, would act. Our attention has been immediately directed to this subject by a letter addressed to the Duchy and the members of the Mining Committee by the Earl of Falmouth, printed for private circulation only. The pamphlet does his lordship infinite credit, for it manifests a degree of practical knowledge, and an adherence to leading constitutional principles, which are the surest, and indeed the only safe basis of sound legislation.

It appears that as the chairman of the Mine Committee, Lord Falmouth, drew up a report in conformity with the resolutions of that committee; but previously to doing so, his lordship entered in the minute book a reservation or protest on the following question:—

"Whether a single judge, the vice-warden, to preside over an equity and a law court, and to be assisted by a resident registrar, whose functions would be of a mixed judicial and ministerial character, would be more likely to conduce to the efficiency of the courts, and the due administration of justice, than a vice-warden with a resident common law judge and a subordinate registrar, whose duties should be simply and unobjectionably suited to his ministerial office."

His lordship states that he is in favour of the latter, and he proceeds to state his reasons with great perspicuity and force:—

"Besides the concurrent feeling of many large landowners made known to me, four out of five lawyers, whose written opinions upon it are before the committee, and one of them a barrister representing the largest mining property in the county, are in favour of separating the law from the equity jurisdiction. They are for having two distinct judges according to received constitutional maxims, and their opinions appear to be quite conclusive both as to principle and experience."

"It is on this account, and under the conviction that the most eminent lawyers at Westminster will be found to concur with them, that I am confirmed in the propriety of submitting these remarks to the Duchy and the committee, and to both parties I respectfully address them, because the interests of both should be identified, and both can have but one object in view, although individuals may differ at to the best means for its attainment."

"I need hardly remind those who may favour what I am writing with their persons, that the administration of justice in the Stannary Courts as now constituted is placed in—

"The vice-warden, supposed to be properly a judge in equity only. A steward or common law judge, in whose office the four ancient stewardships of the Stannaries have of late years been concentrated, and other subordinate officers; the appeal being to the lord warden, and then to the Duke of Cornwall."

"It will also be remembered that these courts have been suspended, not because, had their jurisdiction been clear, and had their constitution and practice been founded upon the recognised maxims of jurisprudence, they would have been inefficient with regard to mining affairs, but because their powers, principles, and practice were so doubtful and confused, that it became absolutely necessary to declare and define them, in order to restore confidence (without which they must be valueless), and to adapt them to the improved and extended state of the mining community."

"With this view, I assume that it was desirable to alter, in name or substance, what required alteration; but that here the change should have its limit."

"The vice-wardenship, properly constituted, should retain its title as well as its equitable functions. The secondary officer should continue to be 'the steward,' whether his office be united with that of registrar or not; and, if need be, his judicial office should be made efficient. Let us examine how these objects may best be attained."

"The natural course, under the above assumption, would be to give the vice-warden a definite, improved, and extended jurisdiction; also to render the steward or common law judge efficient in the same manner, *mutatis mutandis*, enabling him to do interlocutory business, and to grant injunctions, with the requisite checks, if the vice-warden should be non-resident, or, if not, to adapt his office more strictly to the duties of a common law court."

"Then, if a registrar or prothonotary, or both, should appear requisite, to add these offices separately or unitedly, as the case might seem to point out."

"But the proposed plan for constituting the courts is far different, and would abolish the stewardship, or second judicial office, with its duties clearly defined, and perfectly consonant with received principles and precedent, altogether, substituting an officer most objectionable both as to principle and precedent; for which the only plausible argument that I have heard, is, that it will be less expensive. I propose to show how little foundation there now is, even for that argument; and if so, I am confident the majority of practical miners will be as much for retaining at least one resident judge, as are, I firmly believe, the landowners generally within the Duchy."

"The plan is, 'that there should be one judge, the vice-warden, who shall preside in the court of law as well as that of equity,' with provisions as to his qualifications and independence, but without restrictions as to residence."



"Then, as if to obviate the inefficiency of a non-resident judge, for occasions especially local and immediate, it is proposed, that the vice-warden be assisted by a superior legal officer in the quality of registrar, who shall be constantly resident" (at Truro as the central town), and have power not only to prepare the interlocutory business, and that of the courts, but to grant injunctions *ex parte* in the absence of the vice-warden. Now, to this essential part of the proposed Bill, for such I deem it to be, my protest applied, and to this and the points that bear upon it the present remarks are principally directed."

Lord Falmouth proceeds to detail the reasons for preserving the Stannary Courts, and he states they were "founded upon these admitted promises":—

"That there were two chief reasons for preserving our local mining courts, with such improvements as the Duke of Cornwall and the mining interests might conveniently adopt—

"First, the wants of the mining community are especially local and immediate.

"Secondly, the matters to which they relate *sui generis*—they are of a peculiar and isolated kind.

"It is aptly stated by Mr. Basset, in his published remarks, that there seems to be no more ground for asking for provincial courts in Cornwall than in Yorkshire, except in what is peculiar to the mining interest; and Mr. Hill, in a letter circulated before the first general meeting in November last, and evincing a degree of knowledge and research most creditable to its author, has remarked that in Germany, in America, and in all parts of the old world and the new, where minerals have been extensively worked, the necessity of local or special tribunals for administering justice in cases so instant and peculiar as those which mines must occasion, has been felt and provided for.

"If this be so—and so it will be found to be—what becomes of the efficiency of a visiting vice-warden, to reside where he may please, and to be without an efficient and judicial deputy for the local and immediate business in his absence?—for such, as I shall presently show, the proposed registrar cannot be. Courts resting for their expediency upon instant efficiency are to be established, and the judge who can alone hold them may live 260 or 500 miles off: These are to be held upon his visitations, 'once, at least, in three months'; and, indeed, he cannot, in all probability, hold them much oftener if he should so reside.

"It does appear to me that this plan for establishing a single non-resident judge is inconsistent with the only principles upon which the mines of Cornwall can properly and peculiarly claim their local jurisdiction."

His lordship proceeds,—

"I now come to the great argument urged, it will be remembered, in the local committee, in favour of the plan for one judge and the semi-judicial registrar, namely, that it would save expense, and a consequent assessment upon the mining produce. Surely an argument little worthy of our rich and prosperous community, when the pure and perfect administration of justice is the object in view, and untenable even on the very principle of saving that is professed in it; for will not the most perfect courts of which the case admits, amply repay a much larger assessment than the one farthing in the pound that will be required, by the confidence which those courts will inspire (especially in the case of absentees and foreigners), and which they otherwise never can command? Had this been the argument of our forefathers, what would now have been the courts and judges of the land? What would now become of our progressive law and equity reforms? Is this an argument which, when His Majesty has graciously signified his wish to comply with our mining wants, we Cornishmen can consider a wise, a worthy, or a politic one!

"But will the plan in question be economical? It is proposed to have a single judge, and a registrar capable of executing the most important function of granting injunctions, but not capable of acting otherwise judicially in the judge's absence, which will be at least during two-thirds of the year.

The salaries are proposed to be as follow:—For the vice-warden, as judge of both courts, 1,500*l.*; the secretary, 1,000*l.*; the registrar, with the above powers, 500*l.*; the prothonotary, 200*l.*; a collector, 30*l.*—Total, 2,300*l.*

"Now take the alternative here recommended:—The vice-warden for the equity court only, 1,200*l.*; a secretary, 1,000*l.*; the resident steward as common law judge, 700*l.*; the present steward to be registrar and prothonotary by himself or deputy, and to have besides his 200*l.*, 150*l.*; collector (30*l.* too little) 50*l.*; perhaps to the steward's salary 1,000*l.* may be properly added.—Total, 2,200*l.*

"Where then will be the saving? It will be a saving in real efficiency, in constitutional principle, in purity and sound policy alone."

"In point of principle, the serious objections to a single judge are these, which well-informed men will understand and reflect upon. He must preside over both of the courts—the court of equity and the court of law; when an issue (question of fact) arises in that of equity, he, the same single judge who has first directed it, must try it with a jury in the court of law, and then adjudicate in equity upon the verdict returned. For this there appears to be no precedent in point. The Court of Exchequer has been quoted; but there five judges exist,\* and where issues are tried in the law court, the judge in equity who directs them has other judges to sit upon them. Even there too the inconvenience had been so great, that the Lord Chancellor mentioned it the other day, when introducing his Chancery bill, and the discussion which then took place seems conclusively to fix the inadmissibility of confounding courts of law and equity, involving such immense interests as those in question, by the appointment of one and the same judge to preside over them.

"Besides, it is not of great and admitted importance to guard against the frequency of appeals? If so, then I can hardly conceive surer means, not of preventing but of multiplying appeals, than the plan proposed; for will not parties naturally question the *directions* of a judge who may come into his common law court to try a question of fact already biased by the view he may have taken of the case which it affects in his other court of equity?

"Then injunctions, which may or may not bear upon the very existence of a mine, must be attended to; and the registrar, otherwise a ministerial officer, cannot, upon any received principle or precedent, be allowed to grant them.

"As to their being subject to the vice-warden's confirmation, of course, upon the statement of the registrar they would generally be confirmed; but we must also suppose, that in some cases the injunctions of the semi-judge in Cornwall will be dissolved by the real judge in London, or at Brighton; and then the shortest possible answer from him must occasion considerable delay. Are the miners in Cornwall prepared to concede this unprecedented power to the registrar, when the delay of one week upon a wrong injunction may subject their concerns to irreparable ruin?"

Lord Falmouth concludes as follows:—

"Gentlemen, I now submit to your judgment these as the main reasons, which, after the maturest consideration, induce me publicly to state, that I agree with the four legal gentlemen whose opinions are before the committee, those of Messrs. Basset, Freshfield, Hill, and Scott, and disagree with so much of the committee votes as relates to one instead of two judges, and to the points immediately connected with that most important question.

"I think, with the above gentlemen, and, as I know, with other large landowners, that whether the vice-warden were to be resident or not, there should be two judges; and, if the vice-warden be unrestricted as to residence, my reasons for this opinion must then become stronger. I do not think the single judge so unrestricted can be efficient, or that the registrar can be properly allowed the power above-mentioned. I also think that the difference in expense cannot be such as to justify a thought even if the value of principles and confidence in the courts were set aside."

"That there must be a trifling assessment on the mining produce, probably about one in 1,000, is now pretty generally agreed. The regulated fees of the courts, with business multiplied to any thing like the extent of our increased mining transactions, may, and probably will, reduce, if not redeem, even this trifling charge. In the time of Mr. Thomas, whose efficiency was by all acknowledged, the causes were found to average the number of twelve, even when he sat from three weeks to three weeks. This was many years ago; and, since that period, in number as well as produce, our mining transactions in Cornwall are increased beyond all calculation.

"Sure am I that in all matters where the principles of justice are to be administered, in all matters especially which depend for their results upon the perfect confidence of a large and intelligent community, the purest and the simplest system of judicial policy will be found, as it ever has been found, the most efficient and the best."

We certainly agree with his lordship; and it is a feeling very prevalent with those gentlemen we have consulted on this subject, that one judge will not meet the wishes or wants of the mining community, and if these courts are intended to deserve the respect and confidence of foreign capitalists, they must be assimilated in principles and practice to the superior courts of the land. We cannot consent to embark capital, or submit ourselves to the tender mercies of a judge who, "half a horse, and half an alligator," may swallow up mine and adventurers, and exercise functions and honours wholly unknown in this kingdom, and utterly at variance with the principles which are recognised and acted on in the Courts at Westminster.

For the present we leave this subject, satisfied that the clear and able pamphlet of the noble chairman of the Mine Committee, will have due

weight with our readers and the public. We for the present are satisfied to protest against any such mongrel functionaries as that contemplated, and we hope it will not be persisted in. If, however, it really be the intention of the Duke of Cornwall to construct such a court, and such officers, we think it right to state that London capitalists, who at the present moment possess so large a stake in Cornwall, will appeal to Parliament against so preposterous and unconstitutional a measure.

We beg the attention of our readers to this subject, and, if necessary, we venture to suggest the expediency of a public meeting in London, to consider the expediency of opposing the construction of such a court as that contemplated. By the way, when is the country to have the benefit of a Nullum Tempus Act, as graciously promised in the autumn of last year? The session wears apace, and it is time it should be at least introduced.

#### PROCEEDINGS OF PUBLIC COMPANIES.

##### NORTH CORNWALL MINING ASSOCIATION.

The first annual general meeting of this company was held at the George and Vulture Tavern on Monday last, the 6th inst.

T. P. CHAMPION, Esq., in the chair.

The chairman having first read the advertisement for convening the meeting, proceeded to read the following

##### REPORT.

The directors, in meeting their co-proprietors, according to the regulations of the company, have to lay before them a full account of all their proceedings.

The proprietors are aware that this company was formed for the purpose of working two lead and silver mines in the north of Cornwall, called Wheal Hope and Wheal Thomas. The former had been worked by a steam-engine to the depth of sixty-five fathoms, and a large quantity of ore raised, when it was abandoned from the inadequacy of the steam-engine, and the low price of lead at the period. The latter had been recently opened to the eight fathom level, and held out very promising appearances; but the want of sufficient power to keep the water under, caused the temporary cessation of working the mine by its former proprietors. The object of the directors, therefore, was to remedy these evils.

The first step taken was the erection of a water-wheel at Wheal Thomas, to enable the shaft to be sunk below the eight fathom level; by the aid of which the engine-shaft was sunk nine fathoms, the lode cut, and levels driven on it east and west. At this point the seventeen fathom level having been extended east and west upwards of fifty fathoms, and good ore ground discovered, a cross-cut was commenced for the purpose of intersecting the south lode, one of which is known to be about eighteen fathoms from the shaft; after driving ten fathoms the water in the shaft increased, and fears were entertained that more water would be produced on cutting the south lode. It was, therefore, deemed advisable to suspend the cross-cut, and sink the engine-shaft nine fathoms deeper, so as to reach the old, or Wheal Thomas, lode at that depth. This has been effected; a cross-cut driven from the shaft, and the lode cut, after two fathoms driving; and the directors are happy to state that the lode has much improved in depth; the ores from the seventeen fathom level producing seventy-three per cent. lead, and twenty-eight ounces silver, while, at the twenty-six fathom level, it has produced eighty-two and a half per cent. of lead, and thirty-nine ounces of silver. Fourteen tons three-quarters of ore have been sold of the first named quality, at 16*l.* 19*s.* per ton of twenty-one cwt.; and about twenty tons (the produce of last month) remain on the mine. But the directors, considering the price of 16*l.* 19*s.* very inadequate to its value, have made arrangements for the future sales of the produce deliverable in London; and they are happy to add, they have sold, as a beginning, thirty tons of lead ore of the same quality, at 21*l.* per ton, being at least 3*l.* per ton more than the price in Cornwall, after paying carriage; rendering the expediency of the company smelting their own ores very doubtful.

The top water at Wheal Thomas having materially fallen off, and having met with an increase from the lode at the twenty-six fathom immediately after cutting it, it is necessary, for the further prosecution of the working of the lode at this level, that flat-rods should be brought from the engine at Wheal Hope, which will be immediately proceeded with, and will be completed within two months. This will enable the further sinking the engine-shaft in the first instance nine fathoms deeper, and open eighteen fathoms of backs in ground, of which nine fathoms, between the seventeen and twenty-six fathom levels, are known to be good; and the indications at the bottom of the twenty-six fathom level justify the expectation of a continuance of good ore ground between the twenty-six and thirty-five fathoms. In the mean time the cross-cut at the seventeen fathom level is again proceeded with, in order to intersect the south lode before alluded to, which it is expected to reach in about six weeks, and will then be continued onwards to the Budwick and other lodes in that direction which is considered good mineral ground.

In closing their report on Wheal Thomas, the directors cannot but express their gratification at the present condition and future prospects of this mine, which is already in a state of profit.

**Wheal Hope.**—The first operation at this mine was the erection of the steam-engine, which was advantageously purchased, not only as to price, but also in the saving of time, as the founders were then so fully employed, that they would not contract for the delivery of steam-engines in any reasonable or certain time. The engine on the mine at the former working was a thirty-six inch cylinder—that purchased by this company a sixty-three inch—which made it requisite to enlarge the shaft to admit pumps of the proper dimensions, and which has caused the delay in unwatering the mine. The shaft has been now cut down to the fifty-eight fathom level, and the water forked to the sixty-five or bottom level. The twelve, twenty, twenty-eight, thirty-eight, and forty-eight fathom levels have been recently cleared and secured. The twelve and twenty-eight fathom levels are being driven on the course of the lode, which is large and kindly, producing muddle and stones of ore. In the rise at the thirty-eight the lode is large and similar to the above. About this spot, from the present indications, lead may be expected to be raised from one day to the other, as, during the former working, thirty tons of ore were raised in one month from a rise in this level. The fifty-eight and sixty-five fathom levels are being cleared. In the back of the thirty-eight fathom level are four tributaries, and the fifty-eight fathom is sufficiently cleared to admit of two men on tributes. Enough of ore is seen in the fifty-eight and sixty-five fathom levels to admit of an increased number of tributers when these levels shall have been cleared, and which will be in the course of this month.

During the past month seven tons of ore have been raised from this mine, which are dressed, and sold together with the twenty tons from Wheal Thomas, at the same price; and from the present appearance of the mine, this quantity will be considerably increased after this month, when the levels being entirely cleared, will admit of a great addition of tributers.

Considering the short time that the company has been established, the directors cannot help hoping that their fellow-proprietors will approve of the measures they have taken, and agree with them in opinion that as much progress has been made in the development of the mines as could have been expected. They will continue their best exertions; and have every reason to believe that at no very distant period the mines will amply repay the proprietors for their outlay.

FINANCIAL STATEMENT.		Cr.	
Cost of Mines.....	£ 1065 9 0	Deposits.....	7000 0 0
Expenses of mining and machinery.....	6418 3 7	Ore sold.....	277 10 0
Rent, printing, salaries, &c.....	317 1 10	Interest on Exch. Bills.....	219 11 9
Cash.....	2765 10 5		38 13 8
	£10,665 15 5		£10,665 15 5

LIABILITIES AND ASSETS OF THE COMPANY.		£ s. d.	
Cash.....	2765 10 5	Merchants' bills outstanding.....	600 4 0
Calls unpaid.....	222 18 0	May costs.....	420 0 0
Cash in Cornwall.....	60 0 0	Dues.....	50 0 0
Old iron sold, not paid for.....	90 0 0	Balance.....	3044 15 6
Thirty tons of ore, ready for shipment.....	000 0 0		
	£2765 10 5		£2765 10 5

The report and accounts having been laid on the table, the chairman read a report upon a mine which had been offered to the company, in the neighbourhood of Wheal Hope, the working of which, it appeared, was calculated to prove of great advantage to the company. The question, however, of the purchase was submitted by the directors to the consideration of the proprietors. After some discussion on the subject, it was determined that, as the mines possessed by the company were considered to be in a satisfactory course of working, it would not be advisable to add at present any other undertaking.

The report of the directors having been received and adopted, the following resolutions were carried unanimously:—

That G. G. Webb and William Bruce, Esquires, be appointed auditors to the company.

That the sum of 300*l.* per annum be appropriated and paid to the directors for their services.

The business of the day having been concluded, a vote of thanks was passed to the directors, and the meeting adjourned.

#### ST. NEOT AND ST. CLEER CONSOLIDATED MINES.

A meeting of the proprietors was held at Elliott's Hotel, Devonport, on Thursday, 2d inst.

J. DUCK, Esq., M.D., in the chair.

A report on the proceedings of the company having been read, Mr. U. Row, on behalf of the original proprietors, made a communication to the meeting, expressive of their readiness to place the affairs of the company in the hands of the proprietors generally, and submitted that certain resolutions should be passed as the basis of the regulations by which the company should be hereafter governed.

The several resolutions, which will be found in our advertising columns, having been unanimously carried, and thanks voted to the chairman, the meeting separated.

#### BANK OF AUSTRALIA.

The second annual meeting of the proprietors of shares in this association, established for the purpose of extending the banking system in New South Wales and Van Diemen's Land, was held at the company's offices in Aldermanbury, on Monday, the 6th inst., for the purpose of receiving a report, and on other affairs.

J. S. BROWNIGG, Esq., in the chair.

The secretary, after the election of directors had taken place, read the report. It stated the proceedings taken by the directors to commence banking in the colonies, establishments being now formed at Sydney, Hobart Town, and Launceston. Notes and bullion had been forwarded to the colonies to facilitate the operations of the company, and already the directors had transacted some exchange business in remittances to the colony. The total expense incurred up to the 31st December last was stated at 5,292*l.*, of which 3,719*l.* 2*s.* had been expended in England, and 1,543*l.* 4*s.* in forming the branches in Sydney, Hobart Town, and Launceston. The remainder of the subscribers' capital was invested in securities. The report concluded by the expression of a hope, on the part of the directors, that at the next annual meeting a highly favourable statement of the company's affairs would be made.

The report was adopted, and, after some conversation, thanks were returned to the directors, and the meeting adjourned.

#### MINING CORRESPONDENCE.

##### ENGLISH MINES.

##### WHEAL BROTHERS MINING COMPANY.

June 6.—I have much pleasure in informing you that the water is drained from the sink below the twenty fathom level, and we shall now commence sinking on the course of silver.

**The Thirty Fathom Level East and West.**—Lode much the same as last reported. The twenty fathom level west improves in appearance. In the ten fathom level and adit we have no alteration. The boundary or western shaft is down about seven fathoms from the surface. Lode large and promising. J. MALACHY.

##### EAST WHEAL BROTHERS MINING COMPANY.

June 6.—We are still driving west on Wheal Brothers lode towards the boundary shaft, which is two and a half to three feet wide, producing good stones of copper ore, with lead and silver, and altogether a very promising lode. In driving east on the East Cornwall or Well lode, which is about twenty inches big, we find a great improvement, and very rich stones of yellow copper ore throughout it. We have commenced sinking, and are proceeding with all possible dispatch with the boundary shaft between Wheal Sisters and this mine, for the purposes of ventilation, &c.—J. MALACHY.

##### WHEALBUSH MINING COMPANY.

June 6.—I beg to inform you that we have no material alteration since last week's communication. The ground in the eighty fathom level is more favourable for working than before we cut the cross-course, and have now about fifteen fathoms more to drive before we shall cut the lode. The lode in the sixty-two fathom level west is about a foot and a half big, good saving work for copper. In the eastern end of this level the lode continues large and promising. Our lode in the rise at the thirty-five fathom level continues very good. All other parts of the mine are much the same as usual. I have the satisfaction of adding, that on Saturday last we shipped for Swansea (per the *Phœnix*, Captain Taylor) eighty tons of copper ore, of very good quality. JAMES LANE.

##### CORNWALL UNITED MINING ASSOCIATION.

Silver Hill, June 1.—The lode in the deep adit level driving west has improved; the gossan is soft, and interspersed with lead. The water is about to be drawn out of the workings recently made, and the lead lode exposed, as at first proposed, under the bed of the river. WM. BENNETT.

##### TAMAR SILVER LEAD MINING COMPANY.

June 6.—I mentioned in my last report the arrival of the remainder of the materials for the steam-whim engine, since which that machine has been put to work. We shall in a few days be enabled to clear a great deal of the stuff in the levels already drained, and shall very shortly be in a situation to get up some good ores from the mine. We find that those which are in sight at the seventy-five fathoms, and other levels, fully answer our expectations on examination. THOMAS PETHERICK.

##### EAST WHEAL STRAWBERRY MINING COMPANY.

June 6.—We have gone through a very good tin lode in the fifteen fathom level west of Roberts's shaft, on Trevelthen south lode; it is very good in the bottom of the level, inclining considerably to the west, towards Trevelthen old mine, between which and our recent workings west of Roberts's shaft, there appears to be a large extent of promising ground, which it is desirable to explore without delay. The dressing of the copper ore, the building of the engine-house at Orchard, and our other surface work, is going on very satisfactorily. WILLIAM PETHERICK.

##### EAST CORNWALL SILVER MINING COMPANY.

June 6.—Having completed the work of the plunger-lift at the engine-shaft, and fixed another lift for forking the mines below the thirty-five fathom level, we have commenced casing and dividing that shaft from the surface, and other ordinary work, to enable us to cut it down (being much too small) and clear it to the bottom. The lode in the bottom of Maloney's shaft continues large, and is more promising, and produces finer stones of copper ore than noticed last week. The same lode, in a winze below the twenty fathom level, about ten fathoms further west, is very kindly, producing silver, lead, and copper ores. WILLIAM PETHERICK.

##### NORTH CONSOLS MINING COMPANY.

There is no alteration in the tutwork bargains since my last report; as far as regards the tributaries' part, they are getting on very well, and are dressing and getting the ore merchantable as fast as possible. I have nothing more to state at present. THOMAS TIPPERT.

##### ST. HILARY MINING COMPANY.

June 4.—The sumpson in Wheal Leads are proceeding in sinking the new engine-shaft to the forty with all expectation. We have put four men to clear the thirty fathom level west, and four men also to clear east at that level. The new western winch-shaft that we have sunk from surface will be communicated with the thirty by Tuesday next. There has been no alteration in the twenty fathom east since my last. We continue to drive east at that level on the south lode, but there is nothing new to report during the last week, and thus our tributaries have been assisting a great part of their time the sumpson in fixing the lift. It will be our sitting-day next Saturday. C. N. BEAVER.

##### NEW SOUTH HOVE MINING COMPANY.

May 28.—We have driven on South Hove lode this month five fathoms five feet eleven inches; the lode is much the same as last week, composing fluor-spar, white iron spar, spots of lead and muddle. I have also sent a sample of the lode. JAMES WILLIAMS.

Tuesd, June 4.—We have sunk in the air-shaft this week three fathoms four feet six inches. I expect, in the course of four weeks more, that the air-shaft will be down on the back of the level.

**South Hove Lode.**—We have cut ground in the back of the pit to bring the water barrels into the cistern, and likewise cut ground for the cistern, and have put it in. We have sunk one foot and a half in the shaft on South Hove lode. J. BLAWETT.

##### POLEGREEN MINING COMPANY.

June 4.—In surveying this mine to-day, both at surface and underground, I do not see the slightest alteration since my last report of the 20th ult.; the prospects continue encouraging, and all operations are going on effectively. RICHARD ROWS.

##### EAST WHEAL PROSPECTIVE.

The copper lode discovered about six weeks since at this mine has been extended on about fourteen fathoms; and has produced several tons of rich ore; at present it is rich for tin, nothing being more common than tin copper below to produce tin on their backs. The ground is exceedingly favourable for copper. A new shaft has been commenced to communicate the copper lode, when the workings therein will be prosecuted with much greater facility, and the ore already discovered by driving the shaft level taken away. The shaft level, extending south to cut the tin lode, has just intersected the workings of the old mine; a few days will enable the agents to report the quality and appearance of the lode. WM. HOOVER.

\* The fifth judge was appointed when the Welsh Courts were altered, and one of the five judges sat constantly at chambers.  
† It is now shown to be rather in favour of the two judges, one at least to be resident, than otherwise.



## CORNWALL GREAT UNITED MINES.\*

**Eastern District, June 4, 1836.—Auditor's Report.**—I returned from these mines this morning, and have now to transmit to you the gratifying report of our last month's proceedings. In our western lode the end continues much the same as before; it has occasionally, for some feet, not been so good as the produce of the preceding month; but it has recovered again within these few days, and we are breaking good ground for tin, as in former months. In the eastern part of the mines we have done wonders in May. We had, as you know, fourteen men at tutwork—they paying per bargain all costs. The outlay for this pitch does not amount to 100*l.*, in May, for this part of our works; and I have the agreeable fact to add, that the fourteen men have actually broken stuff to the value of 800*l.* The floors look rich indeed, considering that our works are so young; and we may challenge any mine in the county to equal us within the same period. The lode from whence it comes is looking as well as ever. In the early part of the present week a new discovery has been made in our eastern part: our miners call it a "lode pit"—it is dipping south, and the stones broken are exceedingly good. It is in whole ground at the adit level, about twelve to fourteen inches wide, and in soft country. The stones brought up present far better produce than our best work in this district, but I shall not venture to report it more particularly until we have tried the lode further. The wheel pit is drawing to a finish, and I hope to report her at work in the first week in July; and the engine-shaft for the same, called Bullock's shaft, is going down with dispatch. Our agents have hitherto boasted that in all they have done, scarcely a stick of timber has been put under ground, such is the favourable nature of it; but in this shaft we find we use timber. At Wheal Julia we have completed the new whim at the engine-shaft, and are now securing the shaft, to which the adit is nearly cleared home, so that the agents say they will soon be "in course" at this part of the mine. The tin floors and foundation for the engine are also going on as well as possible.

**Western District.**—It seems quite clear, from the reports of the old miners in this district, that an excellent course of tin was left by the former workers for want of power to draw off the water. We are making preliminary works here, clearing adit, and sinking shaft—these are the works ordered; and we shall want a small changing house, smiths' shop, &c. Captain White, of Whiddon, recommends, when we are prepared, an engine of forty-inch cylinder for trying one part of this district.

**St. Agnes District.**—I was over this district on Monday last. The following is a copy of the Captain's report to me, dated that day. It applies to the north part of our sett, which extends to the sea. The limits are very extensive, and may be distinguished as north and south.—"I beg to hand you a report of our proceedings at this mine. We have several lodes in the north part of the mine, but our object at present is to explore on two or three of them which have been most productive in the Old Polberro mine, being a continuation of the same lodes. The northernmost of these lodes is the Old Polberro great lode, underlying south. The south, or Mitchell's lode, underlies north; between these there are two other lodes, which have a very promising appearance on the backs. In order to explore these lodes, we are sinking two perpendicular shafts, Concanen's and Agnes'. In Concanen's shaft we have sunk twenty fathoms—nine men employed—giving at present 10*l.* per fathom, being a large shaft, qualified both for a footway and whin-shaft, or, if necessary, in some future period, for an engine-shaft. Agnes' shaft we have sunk fifteen fathoms—six men employed—giving 6*l.* 6*s.* per fathom. We have fixed those shafts so as to intersect the junction of those opposite lodes, about forty fathoms from the surface, according to their present declination. On the south, or Mitchell's lode, we are driving three levels into the hill on the course of the lode; viz. the deep adit or sea level. This will not only drain the mine of water to this depth, but prove the value of the lode. We have six men employed in this end, giving 5*l.* 5*s.* per fathom. In the second or middle level we are driving on the course of the lode, having but just discovered it; it is about two feet wide, producing good tin, having a very promising appearance, but not rich as yet—four men employed in this end—paying 55*s.* per fathom. In the upper and shallow level we have driven about thirty fathoms on the lode; notwithstanding, it is not more than ten fathoms from the surface; it has a most promising appearance. One bunch that we have gone through, a common end high, has turned out 50*l.* worth of excellent tin. From present appearances there is not the slightest doubt that when those deeper levels are brought forth, under this place, the lode will prove more abundantly productive, particularly as the junction of the lodes will be near this spot. We have six men in this end, giving 6*l.* 10*s.* per fathom. In the bottom of this level we are sinking a winze, which is also looking well—four men employed—giving 4*l.* 10*s.* per fathom. We have six men in the south part of the mine, but are not doing much as yet, only clearing the adit levels, securing the footways, &c. You should observe that our works are mainly directed to the north part of the sett, from whence, by means of the deep adit now taking in from the sea level, we doubt not that much profit may be made without incurring the expense of a steam-draught engine. In the south part we cannot effectually try the mine without an engine."

\* We have inserted the above this week, but in future must decline so doing, not only in this, but every other instance, where the name is not subjoined to the report.

## SOUTH WHEAL LEISURE MINING COMPANY.

**June 4.**—We continue to sink our engine-shaft very rapidly, the ground being favourable, and the water very moderate; our other operations are proceeding with as much dispatch as possible. RICHARD ROWE.

## PERRAN CONSOLS MINING COMPANY.

**June 6.**—We find all efforts to sink the engine-shaft (excepting by steam power) ineffectual. During the past we succeeded in sinking about seven feet, by virtue of drawing the water with a horse-whim. Just, however, at the present depth we have met with a redundancy of water, so as to preclude any further operations below the adit until the engine goes to work. We have not yet cut the lodes to the east of the disordered ground. The appearances on Anthony's lode, going west, are of a promising nature. On Wheal Hope lode, driving west at the adit level, we have an improvement. Within the last few days some rich stones of lead have been broke. In the cross-cut extending south we have cut a large lode, composed of gozwan and a quantity of muddle. No other alterations worth notice since my last communication. RICHARD ROWE.

## ST. NEOT'S AND ST. CLERK CONSOLIDATED MINES.

**Gonzow, June 6.**—We are now driving the shallow western level on the course of the lode, north of the Punch Bowl, which, though not rich, is producing some tin. The lode at the Punch Bowl has improved at the east end, but is also smaller. A winze is begun in the west end with evident improvement in descending. The shaft on the deep level is nearly down to the fifteen fathom pit, from which we intend to cut John's lode at the next south. In the deep level, a considerable quantity of water having been cut down within the last few days, we anticipate reaching the first north lode earlier than was calculated. The quantity of tin stuff is still accumulating, very unexpected delay having taken place in getting the stamps ready, which is partly owing to the holidays, and the difficulty of getting a good engineer who is not busily engaged.

**Tu Hatches.**—Since our last we have cut two new lodes quite as rich as the former. Our new shaft has made considerable progress, and the prospect here is most encouraging. At Wheal Bank it is intended to sink a shaft about thirty fathoms, at which depth we expect to find the lode of a much richer character. At Killham and Trengale the lodes have much improved since our last. W. ROWE.

## ROCHE ROCK MINING COMPANY.

**June 6.**—The twenty-one fathom level, now driving towards Campbell's shaft, is eased, and enables us to reduce the price from 7*l.* to 8*l.* per fathom. The thirty fathom level, now driving east on the north lode, continues in tinny ground. The forty fathom level, east on the north lode, is hard, and just as formerly for tin. The sixty fathom level, west of the engine-shaft, not quite so good as last reported, but the ground is not so hard. The winze and pitches are much the same as last reported. The pitch on Fisher's lode is better than on setting-day. This lode produces tin of very good quality. SAMUEL ROBINS.

## BRITISH TIN MINING COMPANY.

**Great Wheal Venture, June 6.**—The middle lode at present is about five feet in size, not quite so productive as last week, but tinny throughout. The ground on the caunter is cased a little. The lode is from twelve to eighteen inches big, and tinny. The ground on Glow Hill lode is much the same as last reported. The ground in Rowe's winze is much eased; the lode is about twenty inches big, and producing tolerable work. The ground on middle lode adit level is favourable; the lode is large, carrying only three feet in the end; it has a promising appearance, and contains tin. The ground in Paul's shaft is very hard, but dry; we hope this ground will not continue long. We have two men stopping the back on the middle lode twelve fathom level, at the same time lengthening the back as we gain south; the lode is from six to seven feet in size, producing good work. I am happy to say we have just seen the south wall of the lode in the engine-shaft; its appearance so far looks to be favourable. We could soon prepare for market five to six tons of black tin if our stamps were supplied with water, having now several fathoms of good tin ground open. JOHN BRAY.

## KERROW MINING COMPANY.

**June 6.**—The only castings yet arrived are those referred to in my last report; and as our progress now mainly depends on the arrival of castings, some delay may be expected. In the erection of our stamps we have met with more than ordinary impediments, which will, however, be overcome in a few days, as we are very anxious on this point, as the trial about to be effected on the stout barrows will probably throw an unusual degree of light on the nature of our lodes, and their importance in depth. WILLIAM BROWNE.

## WHEAL SISTERS MINING COMPANY.

**June 6.**—I have to inform you that the lode in the twenty fathom east is looking much more promising than for a long period; it is about fifteen inches big, with carbonate of iron and silver. The lode in the ten fathom level and adit is also very promising, with silver and iron, &c. I have much pleasure of informing you that we are daily raising rich ore above the adit level east of Wall's shaft. One stone of the ore has just been brought up, and weighs 107 lbs.—very rich indeed. J. MALACHY.

## REDMOOR CONSOLIDATED MINING COMPANY.

**June 6.**—Since the date of my last report in driving the thirty fathom level north of Johnson's shaft on the lead lode, we have cut three other branches, composed of quartz, with very good stones of tin ores; they appear to be a lode disordered by its intersection with the lead lode; this can be ascertained by extending on them eastward and westward, which cannot be done until we have communicated a winze with this level (now sinking below the twenty fathom level) to improve the ventilation of this part of the mines. The lead lode, both in the twenty fathom level and the thirty fathom level north of Johnson's shaft, continues promising and productive as we approach the "whole ground" below the old men's workings further to the north. We are proceeding satisfactorily in sinking Johnson's and the engine-shafts, and the other operations of these mines. WM. PETHERICK.

## ALBION MINING COMPANY.

**June 7.**—Wheal Liberty engine-shaft is sunk under the sixty fathom level about three fathoms; the shaft at this time is in a very favourable stratum of ground. Wheal Mithian engine-shaft is sunk under the fifty-four fathom level about five fathoms—still in a large course of muddle of a promising nature. With the exception of the above remarks, I cannot state the least alteration in these mines since my last report. We shall sample this day week about fifty tons. JOHN MIDDLETON.

## CARN GREY MINING COMPANY.

**June 6.**—By tracing the disorder of Pitt's lode, it is gratifying to find that our ideas were correct, and that the leader or tin part of the lode is not destroyed, but heaved to the south; we have proved this the last week, and have now a good course of tin, on which we have placed two additional hands. We shall to-morrow commence a cut to bring in water to this part of the mine, for the purpose of stamping, dressing, &c., and with this advantage we shall be able to direct considerable attention to this part of our mine. At the deep adit we have seen Elder's lode to the eastward, and there it is very poor, so that we are now driving a cross-cut to cut another lode further to the south, which has a much more favourable appearance, and which we expect to cut in about a fortnight. WILLIAM BROWNE.

## REDRUTH UNITED MINING COMPANY.

**Wheal Uny, June 6.**—The sumpmen have been employed in the past week dividing and casing the shaft, and we are just about to make a beginning to drive the forty-four fathom level east and west of the said shaft. The lode in the thirty-two fathom level, west of Cock's shaft, is large, though not rich. The lode in the thirty-two fathom level, east of the engine-shaft, is just as I stated in my last. The lode at the twenty-two fathom level, east of Gooding's, is about three feet wide, producing tin ores. The lode in the twenty fathom level, west of Cock's shaft, continues large, produces at present a small quantity of tin ores. The lode in Gooding's shaft is about three feet wide, producing tin ores. There is no alteration in the winze bottom of the twelve fathom level, east of Gooding's shaft, since my last. The copper ores we shall sample to-morrow, which will be from twenty-five to thirty tons, I believe. The tin ores we shall sample on Monday the 20th inst., and sell on the Thursday following; the quantity I expect will be about 3000 sacks. At Buckett's there is no alteration since my last. At Cljiah, the lode in the thirty fathom level is small, and not rich. We have cut a lode in the twenty-fathom level cross-cut, west of the engine-shaft, and are about to drive west upon it. RALPH GOLDSWORTHY.

## HAYLE CONSOLS MINING COMPANY.

**Busworgie Mine, June 6.**—Elward's engine-shaft is now sunk to a twenty-six fathom level, and we have commenced driving a cross-cut from its bottom to cut the lode, and are also preparing to sink Hunt's shaft from the fifteen fathom level, in the bottom of which there is some tin. The other parts of the mine are being prosecuted as before, but in them there are no alteration since my last.

**Trevidgia Mine.**—Both the ends of the ten fathom level, east and west of Lyon's shaft contains a little tin. We have this day commenced sinking the Seven Men (now Wood's) shaft from the ten fathom level, on the course of the lode, and in promising tin ground. We have also commenced clearing and repairing the same level south, to intersect the southern lodes. Our tin from this mine (about forty tons) will be sold to-morrow.

**Hayle Consols Mine.**—We are now making good progress in putting the parts of Harrison's engine together, and hope to see her working before Midsummer, which will be a great relief to us, as we shall then be enabled to resume the stamps to great advantage. J. TREBILCOCK.

## TREBLEIGH CONSOLS MINING COMPANY.

**June 4.**—I beg to inform you that our engine-men and other tradesmen are getting on well with their work, and the sumpmen and men labourers are busy fixing the rods and pitwork in the different engine-shafts. The back of the adit on the north lode continues ore, but not so good as it has been, consequently we have suspended it on tutwork, and offered it on tribute, with some other places, but without effect, there being no tributaries in the survey. In the end on this lode we are continuing to open ground, and drain water that might affect the engine; the lode though kindly is small and not rich for ore. We have set the Wheal Christo shaft to sink by six men, one fathom at 6*l.*, but it will take a fortnight to make the necessary preparations before they can get the shaft cut down for fixing the pitwork, &c. W. SINCOCK.

## WEST WHEAL BROTHERS MINING COMPANY.

**June 4.**—The sluacan and branch in the back of the twenty fathom level produced 522 oz. 13 dwts. 8 grs. per ton, exactly the same quality as the last general sample. There is a cut of it mixed with the former heap. Just as I was setting the various bargains, William Mathews brought up some good stones of grey oxide and wire silver, very perceptible; it must have been discovered from the time I left him working in the back, whilst I was surveying and measuring the bargain at Henrietta. The lode in the rise, about four fathoms above the back of the twenty, is two and a half feet wide, with a deal of white iron, which is saved. The lode going west is large, a branch of muddle and iron, producing 74 oz. 13 dwts. per ton. East in the same level is just the same quality. The silver lode is cut in the new east shaft (commenced last Tuesday); the gozwan is very strong, of a dark yellow, producing 9 oz. 6 dwts. 16 grs. in every ton of stuff. I think this is very encouraging, so near the surface. The west shaft is just the same quality; there is scarcely any difference as to the size of the lodes; very regular in both, a distance of sixty fathoms. There is no alteration in the ground in Lowe's shaft, but progressing regularly. The copper lode at the twenty-three going west at Henrietta is still five feet wide, with appearances of more copper, inasmuch that I have increased the number of men from four to six. J. CARPENTER.

## OLD MOOR MINING COMPANY.

**June 6.**—That destruction to all order called here "Parish feast," has occupied the last week, so that but little has been done either here or in any other mine in the parish, as Saunders' lode has been driven on only about three feet, and though not quite so good still produces some good work; its size is not yet known. When I last wrote, we intended to put in stamps *pro tem.*, in a situation where they could speedily be erected, but on further consideration we have, under the full impression that the greatest possible use will be required of our water power, determined on bringing a level to work it at the highest point we can, and are proceeding in this object. It will be recollected that the principal part of this sett, as well as Kerrow, has been streamed over by tinners; and as the bottom of the level driving on Saunders' lode is not more than six feet deeper than their workings, it is very probable if any notice can be taken of their operations, that other lodes known to exist in this sett, on being opened, will also present encouraging appearances. The shafts on the new plan are so far progressing without any difficulty, and we hope to succeed. The difficulty of procuring stone for our buildings is now removed, by bringing up a deeper level to the quarry, and all the stone work, except the engine-house, is completed. W. BROWNE.

## BRITISH COPPER MINING COMPANY.

**Great Wheal Charlotte, June 8.**—By this post you will receive the setting report for June, from which the board will perceive that I have suspended the driving of the fifty-two fathom level west. I offered 16*l.* per fathom for driving it, but no one would except any offer, and as the lode in the end is at present poor, and the board wished me to suspend all tutwork operations that I could with consistency, I would not advance my price. The board will also perceive that I have for the time suspended the driving of the adit end, west on the north lode, and have set the men to sink a winze in the bottom of the adit level. This I did for the purpose of laying open a large quantity of unexplored ground through which the north lode and branches run. The lode and branches have proved very productive at the adit level and above, and no doubt will also prove to be so below; and further, the board will see that I have increased the number of labourers in stopping the back of the fifty-two fathom level on the course of the lode, although there has been a manifest improvement in the lode for the last two months, yet I have not been able to make a proportionate deduction in the tribute, in consequence of the existing call that every where prevails for labourers. The lode in the twenty-two fathom level and west continues promising, although not rich. I have set a pitch in the back of this level at 10*s.* in the pound. The lode in the fifty-two fathom level east is large, kindly, and yielding good stones of ore of excellent quality, but is disordered with cross-heads. The

lode in the forty-two fathom level east continues to improve, and the strata in which it is imbedded is of the most favourable description. All our works are progressing with spirit and regularity, and I am anticipating an increase in the out returns. JAMES STEPHENS.

## UNITED HILLS MINING COMPANY.

**June 4.**—The adit end east and back of said level; lode in the east end about three feet wide, one foot good ore. The pitch in back of said level continues very good. Winze to sink near the adit end west. Lode in the west end is about five feet wide, two feet of fair quality. A pitch in the back of said level is suspended for the present, to get a winze communicated to the ten fathom level. The ten fathom level west, and back, Diagonal; pitch in back of said level, lode three feet wide, two fathoms of fair quality, about nine fathoms to communicate to the level driving east from James' shaft. Winze to sink in bottom of ten fathom level east. Lode four feet wide, coarse generally, but a good branch of ore six inches wide in the north wall. Back of said level suspended for the present, to get a winze down to the twenty fathom level. Ten fathom level, east of James' shaft; lode about three feet wide, eighteen inches of which good ore. The twenty fathom level west, and back; lode three feet wide, very good, as also the back of said level. Twenty fathom level east, Diagonal shaft; lode four to five feet wide, but rather coarse in quality. A winze to sink in bottom of said level; lode much of the same appearance as above. It is intended to prove the lode in the bottom, and make a communication with the thirty. The thirty fathom level east, Diagonal shaft; lode four feet wide, with ore, but coarse in quality generally. Ditto west ditto, and back; lode five to six feet wide, with good floors of ore, produce four or five tons per fathom. The new Diagonal shaft; lode three feet wide, and a very kindly gozwan. The thirty-six fathom level, east of Furlow's shaft; lode three feet wide, with stones of ore, coarse in quality generally.

## FOREIGN MINES.

## IMPERIAL BRAZILIAN MINING COMPANY.

**Gongo Mine, March 19.**—We last had the honour of addressing you on the 9th inst., since which time we have extracted a little gold from the back and bottom of the fourteen fathom level, west of Goldsmith's shaft, and a little from the middle branch at the thirty-four fathom level. The stuff from these places continues to produce gold at the stamps. The stuff lately drawn from the old workings in the back of the seven fathom level at Shore's shaft, has answered very well at the stamps. The ground in the forty-one side level, west of Bayly's shaft, continues favourable for working, and a sample of the stuff from thence shows a little gold. The thirty-four side level, east of Lyon's shaft, is also in favourable ground for working. The other parts of the mine remain just as stated in our last.

W. TREGONING, N. HARRIS, W. BRAY.

**Rio de Janeiro, March 30.**—We wait upon you with copy of our respects of the 24th and 25th inst., and with your committee's dispatch of the 19th inst. just received, also with copies of correspondence from and to Gongo Soco, from the 23rd ult. to the 27th inst. The post has brought us a letter from Mr. Duval, dated Santa Anna, the 19th inst.

NAYLOR, BROTHERS, AND CO.

**Rio de Janeiro, March 24.**—The sailing of the packet being delayed, owing to the non-arrival of the branch packet from the River Plata, and the present good opportunity offering, we wait upon you with copy of our respects of the 7th inst., original per Nightingale packet, and proceed to notice your unanswered correspondence, to which are now added your secretary's letter of the 11th January, received to-day by the Hindia, and your dispatch of the 2nd February, received yesterday by the Ranger packet.

We had much pleasure in receiving Mr. Duval, who delivered to us your letter of introduction, and to whom we rendered all the service in our power during his stay. He commenced his journey to the mines on the 9th inst., but owing to a serious accident happening to Mrs. Duval by the falling of her horse, had only reached Santa Anna, the estate of the Marquis of St. Joas Marcos, on the 17th inst., and would proceed on the following day. He describes the roads to be in a terrible state. The five men and five boys who came out in the Nightingale were sent off, and we expect to learn their arrival at Gongo in a few days. NAYLOR, BROTHERS, AND CO.

**Rio de Janeiro, March 25.**—We had this honour yesterday by the *Thames* for Guernsey, copies of which and of the present will go by the Cockatrice packet, to sail in a few days. We enclose duplicate mining reports of the 18th and 28th February, and your committee's dispatch of the 9th inst., as that of the 19th may possibly reach us in time to be forwarded by the Cockatrice. Every thing is perfectly quiet here.

NAYLOR, BROTHERS, AND CO.

**Gongo Soco, March 9.**—We had last the honour to address you under date of the 27th February, whereof the foregoing is a duplicate, and on the 29th ult. we had the pleasure to receive your dispatch of the 3rd December, together with a letter from Mr. Duval, announcing his safe arrival at Rio de Janeiro. We also received your secretary's letters from Messrs. Collier and William Baird; the latter we immediately forwarded to Mr. Baird at Boacista. The Casa Grande is ready for the reception of Mr. Duval and family; but we are led by Mr. Duval's letter to us not to expect him before the 20th inst. We note the engagement of ten men and boys in the service of the association, arrived at Rio per the Nightingale packet. In handing you the account of the last month's gold produce, we cannot refrain from expressing the gratification we feel in observing that it surpasses any former month's return since October 1833; and that the mine produce has not been equalled since November 1832.

JOHN MORGAN, RICHARD HICKSON.

**Gongo Soco, March 19.**—We had the honour to address you last on the 9th inst., and now beg to lay before you the foregoing duplicate of that letter. We have received from the agents of the association at Rio de Janeiro notice of the arrival of your January dispatch, which was handed by them to Mr. Duval; but we have not had the pleasure to receive any communication from your chief commissioner by the last post from Rio. We have to announce the safe arrival at Gongo on the evening of the 14th inst. of the five men and five boys, per the Nightingale, and with them the return of Richard Luke, blacksmith, re-engaged in the service of the association, by Mr. Duval. The oath of fidelity was duly taken by the whole of this party on the morning after their arrival.

We should ere this have sent you a gold remittance, but have been prevented, there being no officer at Gongo whose services could be spared for this duty without any considerable inconvenience to the establishment.

JOHN MORGAN, RICHARD HICKSON.

**Workings from the 9th to the 18th March.**—Stamps 26 lbs. 1 oz. 17 dwts. 9 grs.—32 lbs. 7 oz. 5 dwts. 2 grs.

The particulars of the workings from the 23rd February to the 8th March inclusive, have not yet reached the board, but as the committee at Gongo state that the total from the

	lbs.	oz.	dwt.	grs.
1st January to the 18th March inclusive is	438	0	7	1
And the produce from the 1st January to the				
22nd February is	311	11	10	8
Adding the above	32	7	5	2
	344	6	15	10

the difference, lbs. 93 5 11 15

must be the produce from the 23rd February to the 8th March.

## ROLLS' COURT.—THURSDAY.

## ENGLISH MINING ASSOCIATION.

VIVIAN AND OTHERS v. HUMPHREYS AND OTHERS.

In this case a bill had been filed by the plaintiffs praying that the defendants, who were directors of the English Mining Association, might be restrained from mining under certain premises called Wheal Perran, which had been leased to the plaintiffs in 1830. An injunction granted *ex parte* was afterwards dissolved, and an issue directed to try whether the defendants had any interest in the premises under leases granted to them in 1822 and 1829, and whether those leases had not been forfeited by the defendants not performing the covenants. Upon the trial of this issue before Mr. Baron Roland, at the last assizes for Cornwall, a verdict had been found for the defendants, and the application to the Court now was, that a new issue might be directed on account of the Judge not giving sufficient directions to the jury.

Lord LANGDALE considered that much depended upon the evidence which was brought before the jury, and he regretted that it had not been satisfactorily commented upon by the learned Judge. The case contained many very important points, upon which the Court required instruction. There was not, however, sufficient to satisfy him that the question had been fully considered, or to enable him to come to any decision. He, therefore, thought that there must be a new trial.

**RAILWAY ACCIDENT.**—A few days since, as a steam-engine was towing a number of laden waggons on the railroad between Lyons and St. Etienne, an accident happened similar to that which occurred lately on the railroad from Manchester to Liverpool. It was going at a rapid rate, and on coming to a curve at a quarter of a league from Givors, where the road is raised on a bank between five and six yards above the level of the plain, the engine went off the rail down the slope, dragging with it two of the waggons. The engine rolled twice over in its course, but was suspended in its fall when about half way down the descent by the weight of the other waggons that remained fixed on the road, the chains by which they were attached not having broken. Two men who were guiding the engine were fortunate enough to escape without harm. *—Galignani's Messenger.*



THE MINING DISTRICT AROUND ST. AUSTELL.

It is well known in Cornwall that the tin and copper lodes are all found in or near the low mountain chains of granite which traverse the county in a longitudinal direction from the banks of the Tamar to the Land's-end, and that though copper is sometimes found in the granite stratum, and tin in the killas, the general rule is that the former is productive of tin, whilst copper is found in the latter, near the junction of the two; this general rule is strikingly exemplified in the St. Austell district. What is locally called the "higher quarter" of the parish of St. Austell, is altogether a granite range of considerable elevation, which also extends westward through the parishes of Rashe, St. Stephens, and St. Dennis, and over parts of St. Newan, and other adjoining parishes; it also extends northward and eastward over the parishes of Luxulian, and into those of Lanhvery and Lanivet—this district is very remarkable for its production of tin. There are, indeed, other districts in the county in which there are tin lodes of equal magnitude and richness; but the remarkable feature of this district is the universal diffusion of that metal in lodes and veins innumerable, and from the largest size to the most minute, inasmuch that every valley or declivity—every channel through which at any period a rivulet or casual mountain torrent has descended in its progress to the sea, has been turned over repeatedly and the alluvial deposit carefully washed for tin, to an extent and with a profit far surpassing anything of the kind in any other part of the county, or in any other part of the world—and that, not only in our own times, but for many centuries past, as established by existing records, and, indeed, in all probability, without intermission for two thousand years or more, and yet until within a very recent period no attempt at mining on a large scale has been made within it; not that the stream tinners of ancient days were ignorant of the sources from which their tin was originally derived, for, in fact, the backs of the lodes were explored at remote periods, and worked upon to a very great extent, as is evinced by the innumerable shafts and levels, and stent or leaving, on the surface; but all these workings were necessarily confined to very limited depths by the utter impossibility of getting rid of the water by the means then available, for except on the borders of the granite range, where the accumulation of surface water in some instances becomes greater, and the declivity at the same time gives the advantage of falls, draining the mines by means of that element has obviously been impracticable; and although the improvements made in rapid succession in the economy of steam within the last half century have finally rendered its use general for every purpose to which powerful machinery can be applied, still this district has not participated in the advantage in an equal degree, even up to the present time. This has resulted partly from the gentlemen of the neighbourhood not having participated in the spirit of mining adventure, but principally from its having been considered as exclusively a tin district, and as of far less importance on that account than those districts which abound in the richer product of copper; tin also being a metal for which the demand has been far more limited, and the production of which by a very few mines of greater extent has been heretofore found sufficient for the market, and that at a depreciated price. Of late, however, the improvement of art and the extension of trade, particularly by the throwing open of the great East India market, have very greatly increased the demand for it, and a corresponding increase of price has been the consequence, which has given an impetus to tin mining that is altogether unexampled. The application of steam extensively has been the next obvious step; and accordingly steam-engines are beginning to appear on the hills in numbers, and in many instances with prospects of advantage to the adventurers of the most flattering character.

Beam mine is almost the only one in this district which has hitherto had anything like a fair trial, on an extensive scale; and this trial resulted in a profit to the adventurers of more than fifty thousand pounds: the price of tin then having declined, the deep levels were abandoned and the steam-engines sold, though a shallow level has still unprofitably been worked with profit; the recent advance in the price of tin, however, renders it almost a calculation of certainty that it may again be worked to its full extent with very considerable profit. Roche Rock Mine is of more recent origin, and as yet is not sufficiently extended for profit; but here the quantity of tin produced is progressively increasing, and the more recent sales have begun to meet the cost, which it is hoped will soon be exceeded. At Buckler's Mine (which is the largest of the Charlestown consolidated mines), the quantity of tin raising is very great, although very little profit has yet been divided, but the product of the mine has in a great measure paid for the extensive and powerful machinery erected on it; and as this outlay will now in great measure cease, large dividends are calculated on, with every appearance of long continuance, inasmuch that shares which from the commencement cost only thirty pounds, have recently sold for nearly eight hundred pounds. At Carne Grey, which is situated near Buckler's Mine, the time has been too short for much discovery; but several promising lodes have been opened, and are in course of exploration. At Kerrow, much the same may be said, with this addition, that a very kindly course of tin has been driven on for several fathoms in length, but cannot be prosecuted with advantage till the steam-engine, now in course of erection, shall be put in operation; and that the stent, or leaving, on the surface (of which there is an immense quantity) has been found to be so rich for tin, as to pay a handsome profit at the present price for stamping and dressing, and bring at the same time the strongest possible indication that numerous and rich lodes exist beneath; since that leaving would not have been accumulated had not the production of great quantities of richer work induced the ancient miners to throw this to the surface out of their way. It is remarkable that this stent has long been the resource of the parish wardens for material to repair the roads; which, of course, is now interdicted. At Old Moor, a very rich lode is opened, and its magnitude is also proportionate to its richness; its width is not yet ascertained, further than that it exceeds fifteen feet; and it is said to be worth fifty pounds a fathom at least; should this continue, and it now presents every favourable indication of doing so, it will be a splendid thing indeed. Carelaze Mine, which is situated in the midst of those above enumerated, is worked entirely open to the light, and has been working in the same way perhaps for several centuries. The veins are here visible in the sides of the chasm: this mine is a great curiosity to those who would wish to see something of the nature of tin veins and lodes, without the toil and danger of descending by the dubious light of candles carried by themselves into shafts and levels; indeed, the chasm itself is a great curiosity, being probably half a mile in circumference, and above forty yards deep, and wholly the work of the persevering labour of a few men—the working having been hitherto limited by the means of stamping the tin on the spot: here is an obvious field for adventurous enterprise. At Great Wheal Prosper a china clay work is appended to the mine, which operates with another class of speculators decidedly in its favour; it has the same advantages for tin as the other mines, in a geological point of view, and the lodes known to exist are numerous. From Wheal Anna several returns of tin have been made, of very excellent quality; a steam-engine has recently been erected, and the mine being in the hands of very spirited proprietors, will have the trial which appearances warrant. At St. Austell Hills the lode is large, and a steam-engine is in operation here also, with every appearance of spirited and judicious management; the lode is not rich, so far as has been yet discovered, but the hope entertained is, that it will improve at deeper levels, and the quantity at all events materially increase the chances of ultimate success. At Great Wheal Venture, in St. Dennis, the appearance of late is very greatly improved; and

the tin actually raised, it is said, will more than pay the cost of the mine, though the means of stamping it are not yet provided. At the Gilbey, in Roche, nothing has yet been done under ground, as the old stream tinners, who in the course of streaming first discovered the lode, worked it away from the surface to a depth of about ten fathoms, beyond which depth there has been no possibility of going without a steam engine—one is now completed, and about to commence working. The tin raised here by those streamers, about forty years since, was considerable in quantity, and of the richest quality, affording them a profit on their quarterly expenditure of three pounds for one on an average; and the concurring testimony of all the living witnesses is, that the lode was as rich at the deepest levels where it was necessarily abandoned as it had been at any part. At Breatye, a rich lode has been discovered, but a dispute about the right, prevents its being worked on at present; a rich lode has also been discovered at East Goss Moor. Of South Polgooth, I shall say nothing, a report having appeared in a late Journal. Old Polgooth differs in character from the above, in being situated in killas; it is one of the oldest mines in the county, and has produced large returns of profit, which it still continues to do; on the south of the granite range, and near it in a line running parallel with it, is a succession of copper lodes, beginning with Fowey Consols, and thence westward to Wheal Union, East Crinnis, Pembroke, Old Crinnis, New Crinnis, Apple Tree, the Charlestown mines—Gevan and Wheal Change—and thence under the town of St. Austell to Polgooth, South Polgooth, and East Wheal Strawberry, on to Grampond—all of which, as they extend westward, have an inclination towards the granite, and seem as they approach it to change their character from copper to tin; these mines have most of them been very productive. Fowey Consols, East Crinnis, and Pembroke, are still making profit; and from these and from Old Crinnis the profit realised must be reckoned by hundreds of thousands of pounds. Old Crinnis, New Crinnis, and Apple Tree, have recently passed into the hands of a new party, who are likely to resume the working with spirit; the absence of which in the mode of prosecuting them for some time past, has been thought by some good judges to have been the sole cause why the profit has not been adequate to the outlay. East Wheal Strawberry, in St. Stephen's, is a recent discovery as a copper mine, and the prospect in this metal is highly satisfactory; as a tin mine, it has been prosecuted for many years with alternate profit and loss; but in the absence of steam power the working has been carried on under great disadvantage, and been too limited as to depth, but a steam-engine is now being erected on the tin lodes also, in addition to that now working on the copper lode, and the proprietors do not seem to be sanguine without reason: there are several other mines in the same vicinity of a promising character, one of which belonging to the same parties is Wheal Hawkins. On the north of the granite range, the ground has been very little explored, but reasoning from analogy, it is very probable that numerous copper lodes exist there also; indeed, one has been discovered near St. Bennet's, on the road between Bodinn and the Goss Moor, which though as yet but four or five fathoms deep, has already produced some very fine coated yellow copper ore. This mine is called East Wheal Providence, and is one of those belonging to the Cornwall United Mining Association. Many other mines have been commenced, and the search after lodes is still continued with great spirit, but to enumerate all would require a pamphlet; in some of these, doubtless the appearances will prove fallacious and deceptive; while in others the want of judgment, capital, and even of respectability, in the projectors, hold out but slender hopes of success; it may, however, be stated with the greatest confidence that the whole district, with its tin lodes, its copper lodes, its china clay works, and tin stream works, is one of the richest and most extensive fields for adventure, and the most deserving of the enterprise, skill, and capital of the miner and speculator that can be found in any country, and therefore it is not wonderful that at present it attracts much attention, though as yet by no means commensurate with its value and importance.

St. Austell, May 28, 1836.

GLOSSARY OF ENGLISH MINING TERMS.

(Continued from No. 38.)

Having completed our list of the Terms used in Cornwall, we now proceed to give those of

DERBYSHIRE.

**Adit**—A horizontal level taken up at the foot of a hill, and either driven on the lode or to intersect it, for unwatering or draining the mine at that level, and also occasionally used for bringing out the ore. The top adit is the adit first driven—deep adit the lowest adit driven—air adit is the adit driven purposely for ventilating the mine.

**Arched**—The roads in a mine when built with stones or bricks are generally arched; level drifts and horse roads, either when cut in coal or in other strata, are formed arch fashion in the cutting for better security.

**Bank or bank**—The face of the (coal) works or place where the miners are turning out the coal, sometimes called bank face.

**Bar master**—An officer who superintends the lead mines.

**Bar meter**—A hall or court in which trials relative to lead mines are held.

**Bassett**—The outcrop of the strata, when a substance as coal appears at the surface it is said to basset; also sometimes used to signify the upper end of the works, as the basset or upper end.

**Bearer or board**—A large piece of timber to support the cistern and pumps in an engine shaft.

**Balland**—Dusty lead ore.

**Belt**—A strap to which is attached a chain, by which coal miners draw the loaded corves of coal.

**Bender**—A piece of iron attached to trunks or barrels to which the pit rope is affixed.

**Blad**—Indurated clay; a name given by miners to any indurated argillaceous substance.

**Binghole**—A hole through which the ore is thrown.

**Bingplace**—The place where the ore is laid ready for smelting and measuring.

**Boring bit**—A piece of steel placed at the end of the borer.

**Blast**—The air introduced into a furnace.

**Blasting**—A hole made with a borer in which gunpowder is introduced, which being confined and set fire to by a match, forces off a portion of the rock or lode; the process is called blasting.

**Board**—An adit is driven "board" when it runs in a transverse direction to the grain or face of the coal.

**Borer, Auger, or Drill**—A round piece of iron, the one end steered.

**Box**—See Hender.

**Boxe**—Lead ore as cut from the vein.

**Brest**—The face of the (coal) workings.

**Bretts** (in coal mines)—A quantity of wood packed together, and the interstices filled up with slack or rubbish.

**Bretts way** (ditto)—A way or road in the mine supported by bretts, built up on each side after the coal has been wrought out.

**Bucker**—A flat piece of iron with a wooden handle, used for breaking or crushing the ore by hand.

**Bucklers, or Tacklers**—Small chains put round the coals when loaded in corves, to prevent them from falling off.

**Buddle**—A frame made of wood and filled with water in which the lead ore is washed.

**Buddling**—Washing inferior ore lead to free it from extraneous matter.

**Bule**—A piece of wrought iron to put round buckets or slack doors on large pumps, to hold them in their respective places.

**Bunding**—Wood placed on which the refuse cuttings or deads are thrown.

**Bully**—In collieries a person who contracts to raise coal by weight or measure.

**Caak**—Whinstone.

**Cap, or Lid**—A flat piece of wood placed between the top of the punch and the roof of the mine.

**Cat diet**—A substance also called Tondstone, being sometimes clay, coal, and pyrites of iron; at others, a kind of earthy scoria not unlike lava.

**Chad**—Used in drawing up ore or coal.

**Chisel**—See Drill.

**Churn-drill**—A large drill from four to six feet long, commonly made with a chisel point at each end.

**Cleat**—A wrack.

**Coffin**—A box with a spring to prevent its undulating.

**Cofer**—Cofering is heating a quantity of clay round the bricking in shaft to prevent the water coming through, and to hold it back in the strata.

**Constrade**—A small building.

**Cooley bailiff**—Superintendent of the colliery.

**Cope**—To agree to get lead ore at a fixed sum per dish or load, or other measure.

**Coppe**—One who agrees to get lead ore by bargain.

**Cop**—A square frame of wood to load coals on; a kind of sledge used to carry ore from the miners at work to the shaft bottom.

**Crop**—The weight of the incumbent strata after the coal has been partially worked out.

**Curb, or Curb**—A circular frame of wood, either planed or screwed together, to serve as a foundation for the bricking in a shaft.

**Cross-roads**—Roads or levels driven in a diametrical direction, across the range of the vein.

**Crow bar**—A lever from six to eight feet long.

**Cupole**—A small furnace, worked by blast.

**Curb**—See Crib.

**Cutting**—An air course set up at either end of the work after the coal has been wrought out.

**Crozier and holes**—When a person discovers a vein, and has no means to possess it for want of stowces, he marks the ground with crozies and holes, by which means he possesses it until he can procure stowces.

**Dam**—Dams are made for various purposes underground, either for holding back water or noxious vapours, such as choke or fire damp. They are generally built either with sand or clay.

**Dan**—A square frame of wood to draw coals from the work to the main roads underground.

**Deads**—Cuttings of stone of no use, attle or rubbish.

**Deep level**—The water-course leading to the engine shaft, being always the deepest adit in the mine.

**Dial**—A compass used to take bearings in mines.

**Dialling**—Taking the different bearings of the various ways, gates, &c. in a mine; surveying.

**Dish**—A measure containing fifteen pints, Winchester measure.

**Door in a mine**—Is sometimes used to open and shut, to increase the circulation of air.

**Dresser**—See Loading pick.

**Drift**—The excavation made for a road underground.

**Drill**—An instrument for boring shot and other holes.

**Driving**—Cutting and blasting horizontally, applied to making a level or adit.

**Eat**—An adit is said to be driven end when it is in a line with the grain of the coal.

**Ending**—An adit driven in a direction with the grain of the coal.

**Eise**—The shaft or handle of a pick.

**Face**—The face of the coal is at right angles with the grain.

**Fang**—A niche cut in the side of an adit or shaft to serve as an air course; sometimes a main of wood pipes is denominated a fang.

**Fausted**—Refuse lead ore requiring to be dressed finer.

**Fault**—An intersection of the strata.

**Fegh**—The refuse washed from the lead ore.

**Flat**—Flat work, &c., when a vein, &c. is horizontal.

**Forks**—Pieces of wood used to keep the side up in soft places.

**Founders**—The first thirty-two yards of ground worked.

**Foundershaft**—The first shaft that is sunk.

**Forefield**—The face or extent of the workings.

**Forefield end**—The farthest extremity of the workings.

**Freeing**—Eating a mine or vein in the barnmaster's book.

**Fuze**—Straws or hollow briars, reeds, &c., filled with powder.

**Gallery**—A drift or level.

**Gale**—Road or way underground; it has various uses, either for air, water, or for bringing out the mine, coal, &c.

**Gin**—The machine by which the coal or ore is raised from the mine.

**Gobbing**—The rubbish remaining after the coal has been extracted.

**Grove**—A mine.

**Gygain**—Walling up a shaft, instead of timbering, to keep the loose earth from falling.

**Hade**—The underlay or inclination of the vein.

**Headings**—When some parts of the vein incline and others are perpendicular.

**Hangbench**—Part of the stowces.

**Hanging side**—The wall or side over the vein, or to which it hangs.

**Horn**—A line running horn is at an angle of 45° with the face of the coal.

**Jackhead pit**—A well sunk inside the mine for various purposes.

**Jackhead pump**—The house water pump of an engine is sometimes so called.

**Jig pin**—A pin used to stop the machine in drawing when necessary.

**Judge**—A staff to measure underground work with, viz. the hoisting in coal work.

**Juniper**—A large borer, an iron instrument worked by hand, and steered at each end like chisel bits.

**Kevel**—A sparry substance found in the vein composed of calcareous spar, fluor, and barytes.

**Kiddle**—A bucket used for drawing up ore out of the mine.

**Kil**—A wood vessel of any size.

**Knits**—Small particles of lead ore.

**Knockings**—Lead ore with spar cut from the vein.

**Knockton**—A stone used to break the lead ore on, but sometimes it is a piece of cast iron.

**Leap**—The vein is said to leap when a substance intersects it, and it is found again a few feet from the perpendicular.

**Leadings**—Small sparry veins in the rock.

**Level**—An adit, gallery, or sough; generally, the main water-course in a mine.

**Lid**—See Cap.

**Limp**—An iron plate used to strike the refuse from the sieve in washing lead ore.

**Loading pick**—A pick made purposely to cleave or rive up coals, and prepare them for laying on the corves.

**Lock**—A cavity in a vein.

**Lot**—A certain proportion taken as dues for the lord of the manor, or owner of the mine.

(To be continued.)

**SHEFFIELD AND MANCHESTER RAILWAY.**—A meeting of the general committee of this undertaking took place at Woodhead, when it was reported that the amount of capital subscribed was nearer 2,600,000, than 800,000, the amount proposed. The shares are to be allotted in the following proportions—3500 by the Sheffield committee, 5500 by the Manchester committee, who have both applications for twice their number, and 1000 to be reserved. It was determined to increase the capital to a million. Instead of the first instalment being to be paid, as had been proposed by 11. per share on notice of allotment, and 41. per share on signing the Parliamentary contracts, it was resolved, that 51. per share should be paid within a fortnight after the allotment. In order also to ascertain beyond dispute the best line, it was also determined, that the country should be re-surveyed by Mr. Vignoles and Mr. Locke, separately, each to report and furnish estimates. In case Mr. Locke's engagements should be such as not to allow him to undertake the work, some other eminent engineer will be employed. —*Sheffield Iris.*

**FATAL ACCIDENT ON THE SOUTHAMPTON RAILROAD.**—Tuesday night an inquisition was held before Mr. Payne at St. Thomas's Hospital, Southwark, on the body of Daniel Price. The deceased was an excavator employed in forming the line of the projected Southampton railroad, which has already been carried in an arched tunnel under the Wandsworth road, which it crosses near the Plough public-house, and is thence continued across Clapham towards Kingston. The deceased was at work at East Serridon, near Kingston, and on the afternoon of the 24th of May, having undermined a mass of earth at the depth of about six feet, he got upon the top to force it down with a crowbar; while so engaged, the earth unexpectedly fell in, and he slipped into the fissure, which opened close under his feet, and he was buried up to his neck in a tenacious muddy soil. His comrades dug him out with as little delay as possible, and carried him on a shutter to Kingston, where a surgeon attended him, who declared him to be only bruised. His comrades, not satisfied with the professional opinion of the surgeon, had the man conveyed to this hospital, where it was ascertained he had three ribs fractured, and the pelvis crushed. He died from these injuries. The witnesses satisfactorily proved the event to have been purely accidental, and stated that every care was taken to prevent accidents. —*Verdict "Accidental death."*

**CASK-MANUFACTURING.**—It is not perhaps generally known amongst mechanics that the salt called prussiate of potash is now much used in cask-hardening. The process is easy, and saves a great length of time. The method is to powder the salt and sprinkle upon the iron when in a state of redness—it will run like oil; and when plunged into cold water, will be found as hard or even harder than iron case-hardened in the usual way. —*Mechanics' Magazine.*



AUSTRALIAN METEOROLOGY.  
BY DR. LHOVSKY, OF SYDNEY.

(Extracted from "The Colonist," a New South Wales paper.)

It is now generally acknowledged that there exist certain laws, by which the seasons of the globe are governed; and it is known that the different zones exercise in that respect a mutual influence upon each other. One of the greatest agencies, which influence the annual temperature of the globe, are those vast accumulations of ice, which circumscribe and compose the two poles. But as the northern hemisphere contains in that quarter a great extent of continents which modify the formation of ice, and influence its action upon the surrounding atmosphere, it is principally the south pole, whence changes and actions upon the terrestrial meteors are derived. This also will be one of the reasons why, in a few years, the eyes of the learned will be eagerly turned upon this land of natural wonders and anomalies. It would be a lengthy and idle question to inquire, whether it is the northern or southern pole, or the tropical and temperate zone—which originates now, or originated primordially, any change of terrestrial meteors and seasons—namely, to inquire if a superabundant formation of polar ice depresses the temperature of the other zones, or if, *vice versa*, a cold season in the latter impedes the comparatively great formation of ice in the former regions. Suffice it to say, that a great accumulation of ice at the southern pole must necessarily refrigerate, not only the surrounding oceans, but far more, the winds, which thence blow over the continents of the new and old world. If this statement is true, as it might be supposed from the high southerly latitudes in which icebergs are sometimes observed floating on the ocean, the next season in Europe and America will be a very cold one. We have now been four years in New South Wales, but in none of these have we had such a protracted and intense cold as in the present. Before the last rains in the beginning of November, there was no rain in Sydney for four months, although this coast of New Holland is generally visited with sufficient rain; in the interior, there was no rain, before the last alluded to, for seven or eight months; but all parts of the colony were visited with cold, and even frosty weather. In June and July last, there was much white frost in Sydney; and it was our intention to have taken thermometrical observations every hour for several days, but we were prevented from doing so, by reasons to which it is unnecessary here to allude. About that time, much snow fell in the valleys of the Australian Alps, so that a number of cattle perished. But it was in the month of June that we observed a phenomenon which we consider to be unknown. In that month we made an excursion to Botany Bay. There is a fine hill about six miles from town, where a quantity of grass trees (*Xanthorrhoea hastilis*, R. Br.) are to be met with, whose flower-spikes appear like so many gigantic torches. Their appearance, however, was much changed this year; the spikes, which were enough progressed in their inflorescence, were the less changed, as they possessed sufficient vegetative vigour to withstand the influence of the preceding frost; but the appearance of the younger ones was most extraordinary; some of them were reflected only at the top of the spikes, but in the youngest, the height of which did not exceed one or two feet, even the *pedunculi* (flower-sticks) were scalded by the frost—they had lost their green colour, looked brown, and were all more or less crooked, like shepherd's hooks; they were so destroyed, that they have certainly neither blossomed nor fruited. The fact, that in a semi-tropical country, native plants are ever thus destroyed by frost, is perhaps a new one; and, moreover, this observation may become in future an indication of the temperature and quality of the subsequent season, useful to the farmer and horticulturist. In the present case, it was drought and continually cold weather; we had only a few days of vernal weather, but continual fresh southerly gales. On November 28, the town and its environs were visited by a heavy hailstorm, and the temperature of the present moment (November 27, 10 P.M.), in the open air, is 57.8°, water in vessels, 57°. All this combined, would incline us to surmise that the next season at home will be a very cold one; of the plausibility of which assertion, we will be informed in due time.

ON THE FOSSIL FISHES OF SCOTLAND.  
BY M. AGASSIZ, F.R.S.

The high geological antiquity of the greater part of the stratified mountains of Scotland gives a peculiar interest to the investigation of their organic remains; as they lead us to the knowledge of the condition of our planet at a period in regard to which we possess only a few insulated fragments of information. The mollusca, zoophytes, &c., of these formations, have been examined by many, but the remains of vertebrate animals have been but little investigated; and of fishes, we are acquainted with those only which have been described and figured by Messrs. Sedgwick and Murchison, and which have also been noticed by Cuvier and Pentland. The occurrence of a large number of these was known, but no particular information as to their nature was communicated. For a long period M. Agassiz has been anxious to have an opportunity of examining these interesting fossils, and this has been afforded him by the meeting of the British Association at Edinburgh.

The collections which have afforded him the most important materials are the following: That of the Royal Society, which, through the unwearied exertions of the secretary, Mr. Robinson, contains many remarkable remains from Burdiehouse; Dr. Traill's collection, containing many interesting fishes from Orkney; Lord Greenock's extensive series of ichthyolites from the coal formation, and especially from Newhaven. In Professor Jameson's possession is a large head of a fish from the old red sandstone of Forfarshire, of which Messrs. Murchison and Sedgwick have shown M. Agassiz a less perfect specimen, but one which exhibits the other parts of the body. Mr. Torrie submitted to his examination an extensive collection of fossil fishes from Caithness, similar to those described by Messrs. Sedgwick and Murchison; and also some fishes from Gamrie, first noticed by Mr. Murchison, who also described their geological position.

Of the fossil fishes from Scotland which he has seen on the present occasion, he will take another opportunity to speak.

As to the determination of the Scottish fishes, he remarks generally, that they all belong to two orders of the class, viz. some to the order of Placoidian fishes, Agass. (Cartilaginei, Cuv.); but the larger number to the division Ganoidian fishes, Agass., and two to the section Heterocerai, in which the upper lobe in the caudal fin is longer than the lower.

In the old red sandstone there are two species from Glamis, Forfarshire, viz. one species of the genus *Cephalaspis* (Ganoidian), which has hitherto been found in this formation only. The most remarkable characters of this genus are the shield-like covering of the head, which is prolonged backwards in the form of two horns, as in the *Trilobites*, and the manner in which the eyes are placed near each other on the head. The other species belongs probably to the genus *Hyodus* (Placoidian), but of this only an ichthyodolite has been seen.

The fishes from Caithness and Orkney approach one another most nearly; though amongst the latter there are several new genera, and in all eight species. Those from Caithness seem to belong to two species only. Amongst the Orkney fishes there are two very remarkable genera, resembling the Acanthodes of the coal formation, also having very small scales; but the new *Cheiracanthus* is furnished with a spine in the pectoral fin only, and the other, the *Cheirolepis*, instead of having the spine, is provided with a row of small scales. M. Agassiz has been convinced, by the examination of many specimens, that the genus *Dipterus* has two dorsal fins and two anal fins, which sometimes are opposite one another and sometimes alternate; and these are types of two genera, the *Dipterus* and the *Pleiopterus*.

The fishes from Burdiehouse are also very numerous; in their characters they agree with those of the coal formation, but are more removed from those of Saarbrück than are the remains found at Newhaven.

The most remarkable amongst them is an animal which, from the structure of its teeth, might be considered as a reptile, and which must have been of very considerable dimensions; but which, from its skeleton and its scales, is decidedly a fish. This animal forms a new genus, under the name *Megalichthys*, and confirms the opinion formerly expressed, that we observe in older deposits organic remains which, with the usual characters of their family, unite the characters of the types which have made their appearance at a more recent period. Unfortunately, no perfect specimen of the *Megalichthys* has been found, and it has not been possible to bring together all the different parts of the skeleton. Another new genus, related to the *Amblypterus*, has a long dorsal fin extending beyond the ventral fin and the anal fin, and may be named the *Eurostodus*. The

other species belong to the genera *Pygopterus* and *Amblypterus*. Very large ichthyodolites occur not unfrequently, and seem to belong to the genus *Hyodus*.

At Newhaven eight species occur, of which some bear a considerable resemblance to the fossil fishes of Saarbrück, though still distinguished from them by some characters. They belong to the genera *Pygopterus*, *Amblypterus*, and *Paleoniscus*; and there is one species which will, in all probability, form a new genus, as it differs considerably from the genus *Acrolepis*. Placoidian fishes are also found, but only in fragments, so that their specific characters have not been determined; and there are two other species, of which small traces only have been obtained.

In the coal formation of Fifeshire, a new specimen of *Paleoniscus* has been found.

M. Agassiz remarks that it may appear strange that he should consider the Gamrie fossil fishes as belonging to the coal formation, but they seem to be so nearly related to that deposit, that he cannot regard them as of much more recent origin. There are three species; namely, one *Cheiracanthus*, one *Paleoniscus*, and a third, of which perfect specimens have not yet been obtained.

From this short notice it must be evident how important the study of the fossil fishes of Scotland is for advancing our knowledge of the beings which existed before the oolitic period, and how much we may yet expect from future careful investigations.

## CARN BREA.

(Continued from No. 41.)

Alfred was now assiduous for the preservation of his kingdom. Those quiet Danish spirits who spurned Christianity, and preferred their former roving life to being settled peaceably among their countrymen, he generously suffered to depart out of his territories. He organised his forces, and posted them in such situations as observation or experience pointed out as being most favourable to the descent of fresh depredators; and he provided a formidable navy, which constantly navigated the surrounding coast, and repelled many a daring foe from the British shores. The ancient Cornish formed their policy on his admirable model; hence Cornwall and Carn Brea reposed in security under the adoption of his wise regulations, and beneath his powerful protection. Historians ascribe the conquest of Cornwall to Athelstan; but it is more than probable that the valour, the wisdom, the justice, the fidelity, and above all the Christian deportment of Alfred, did more towards the Cornish conquest than all the subsequent prowess of the Saxon arms. This wise and patriotic policy led to a conquest of the right sort: it subdued the grateful affections of the Cornish heart to himself. The bright example of this virtuous prince so powerfully enforced his precepts, that it was not long ere the bosom of every subject glowed with the sacred flame; the Cornish were actuated by reciprocal principles, and the once implacable enemies were soon indissolubly knit together in the fraternal bonds of Christian fellowship.

We might here treat largely of the blessings enjoyed by Cornwall consequent on this happy union. But having already dwelt much more at large on the history of Alfred and its connexion with Cornwall than we at first intended, we proceed, passing over the subsequent period, to the reign of Ethelred. In this reign the happy tranquillity which had so long pervaded Cornwall was again disturbed by Danish depredations. That turbulent people had mustered so strongly, and had landed in Britain in such powerful bodies, that the Saxon prince was unhappily driven to extremities; meanwhile a powerful band had marked out Cornwall as their prey. The fleet containing these daring pirates hovered for some time about the Cornish coast, as if undetermined where to land, and were closely watched by the inhabitants, who hastened from shore to shore, in order, if possible, to prevent their disembarkation. At length the enemy drew off, and nothing more was seen of him for a considerable time. The Cornish fondly imagining themselves rid of the pirates became gradually more remiss, and at length they broke up their concentrated forces. Scarcely, however, had the Cornish militants reached their homes, before the hostile fleet re-appeared, and standing directly for the shore, the enemy succeeded in landing a considerable body of his forces at a creek containing a sandy beach, situate on the northern coast just opposite Carn Brea. The scattered inhabitants were again hastily concentrated, some few of whom arrived in sufficient time to annoy the enemy while landing; but after a stubborn though ineffectual resistance they were obliged to retreat, driving before them their flocks and herds, and carrying with them such valuables as the urgency of the case would permit, which, together with their wives and babes, were hastily secured in the general depository at Carn Brea. The Cornish forces were soon assembled, and under the command of a descendant of the celebrated Howel, they advanced to meet the enemy on an open plain, about midway between Carn Brea and the north coast, where, in a desperate battle, the Danish depredators paid dearly for their temerity in landing on the Cornish shores. Neither the written nor traditional records of this remote era are particular in stating the number of Danes which on that day were placed *hors de combat* by the ancient Cornish. But, until within a very recent period, three large barrows which were raised over the ashes of the slain, bore ample testimony of the fact; and from the size of these silent witnesses, the number could not have been inconsiderable. These ancient barrows are now all but demolished; and that Danish dust which for centuries found its repose therein, has, within the memory of the author of these papers, been appropriated to the enriching of that soil which in its animated state it had dared to desecrate. This was a proud day for Cornwall. Carn Brea was providentially preserved from Danish depredation, and the song of thanksgiving was raised by congregated thousands to the Giver of victory, from the summit of the venerated tor.

(To be continued.)

## SMELTING OF COPPER ORE.

The following curious historical notice of some of the earlier establishments for smelting the copper ores of Cornwall is extracted from Pryce's "Mineralogia Cornubiensis":—

The first Cornish copper ores (in order, I suppose, to avoid having the process of smelting divulged,) were carried to Bristol. A palpable mistake was committed in this case, as it was necessary to sustain a double expense of carriage. This was, however, soon rectified; and most of the different companies erected their copper works in some spot of Wales, convenient for the carriage of the coals from a neighbouring colliery; and likewise with the advantages of a little harbour. It is a circumstance of some importance, while we consider this affair, to observe, that, as the numerous fire-engines employ a large fleet of colliers to supply their demands, so the back-carriage of the ore is by no means so considerable as it would otherwise be. But let us turn our eyes to the flourishing state of Swansea, Neath, and those other parts of Wales which have been so very fortunate as to become the factories of the different copper companies; and let us consider those populous towns as owing their existence and wealth to our indolence and inattention. The evil hitherto has seemed irremediable to the spiritless inhabitants of our country, from the vast opulence of the different companies, whose interest it must be to support the present system, the channel of their wealth. They know that it would require a greater purse than any one or two private gentlemen are able to furnish. It was however attempted, about seventy years since, by Mr. Scobell, at Polruddan in St. Austle, with whom Sir Talbot Clark and Mr. Vincent joined, where the first piece of copper ever made so in this county was smelted, refined, and brought to perfection. After this, John Pollard, Esq., of Redruth, and Mr. Thomas Worth, of St. Ives, made a second trial; but both these attempts failed of success, more through ill management, roguery of the workmen, and the improper situation of their works, than any extraordinary charge of the fuel. After these, one Gideon Costler, of Piran Zabuloe, erected a house for the like purpose, at Pen-pol, in the parish of Phillack, but being soon taken off by a fever, when he had made a fair progress in it, the same was carried on by Sir William Pendarves and Robert Corker, Esq., who have both assured the writer (Thomas Tonkin, Esq.) that they could smelt their ore as cheap (all hazards considered) as the companies could pretend to do at their works in Wales. They did so accordingly for some years; but being since dead, and their affairs falling into such hands as had other interests to mind, this project, too, sunk with them. A small beginning was also made to the same purpose at Lenobrey in St. Agnes, where they smelted some copper with good success; but were obliged to give it over for want of a sufficient stock to go on with it.

From all these infant essays, and some observations made and gathered from workmen abroad, but chiefly from the late Mr. Costler, largely concerned in the White Rock works at Swansea, who owned to Mr. T. that most of our ores might be smelted nearly as cheap here as abroad. I am convinced (if we allow for the great salaries the said companies are obliged to give to their agents here and elsewhere, the hazard of ore on shipboard in time of war, and double freight to pass and repass our own inhospitable coast, with the risk of being cast on their native shore,) nay, I believe it would amount to a demonstration, that it might be done much cheaper and more advantageously in some convenient places in this county than in Wales.

Notwithstanding this, it has been the refinement of Cornish policy to suffer the exportation of their raw staple, in order to give other countries the benefit of its manufacture!

To remedy this intolerable grievance, a proposal was made to some of the principal gentlemen of the county, to join in a petition to her majesty Queen Anne, (and had not her sudden death prevented it, it might have been effected,) that her majesty would be pleased to lay it before her parliament, to have our copper mines subject to the statutory laws in all things, (except being under bounds,) and have the copper coined at the neighbouring coinage towns, as the tin is, under a duty of one shilling per hundred of fine copper, to be paid to the Duke of Cornwall; which, as it would be an addition to the royal revenue, and managed without any surcharge by the same coinage officers, so would it effectually secure the smelting and refining all the copper ores within the county, by degrees let us into the true value of our commodity, and the management of it, as easy as that of tin; and, furthermore, confine the labour and profits in the manufactory thereof among ourselves. This small memorial of the above design, Mr. T. says, he has left behind him to be digested in better order by wiser heads, whenever they see convenient season to put it in execution. (Anonym. Address, Tonkin's Mass.)

Thus far had been attempted the smelting of copper ore in Cornwall, which, it must be owned, had been frustrated through the confederacy of opposite interested companies, and the want of sufficient insight into the art of fusion, more than from the attributed extraordinary expense of fuel; till about the year 1754, when one Sampson Swaine, in conjunction with some gentlemen of Camborne, erected furnaces at Entral, in that parish; but their situation being too remote from coal, they removed their works to Hayle. The author very well remembers the combinations which were formed to overthrow this laudable effort. The companies left no method unsought to traduce the credit, and stab the vitals, of this undertaking. Threats and remonstrances were equally used to oblige or cajole the owners of the mines to abandon or suppress the new company at Hayle. The opponents of this association, using every expedient to mortify the spirit of this arduous undertaking, alternately raised the price of copper ores, and lowered the value of fine copper, to the great loss of the contending parties; which will ever be the case where monopolies are disturbed, and the almighty power of opulence can prevail. But happening to have men of fortune and capacity at their head, they were founded in prudence, and withstood the shocks of power and artifice.

That it will answer to smelt copper ores on this side the channel is undeniably demonstrable by the thriving situation of this Cornish copper company, who would not so vastly increase the number of their furnaces without having experienced the benefit of their undertaking.

Similar to that, another company erected works at North-Downs, in Redruth, a few years back. Perhaps their small beginning did not excite the notice of the other companies; however, their industry and economy have been successful; and after having enlarged their works in that unfertile place, at a great expense, they have now removed the same to Tregew, on a branch of Falmouth harbour, for the more profitably conducting the concern. I have further to add, from the best authority, that they are thriving under this removal and many other disadvantages. It is much to be wished, that some spirited gentlemen would imitate their example; and as such a step would be of great advantage to themselves and the community, I will suppose they will, ere long, see with their own eyes, and judge for themselves.

In this little history of smelting copper, no notice hath been taken of those who attempted the practice of boiling and roasting at the same fire. In fact, nothing could prosper in such hands. Neither can we commend the tenacity and improvidence of those who built their furnaces like churches, upon the same plan; not well considering, that a heat for the fusion of stubborn ores can scarcely be too focal or concentrated.

## QUALITY AND CHOICE OF CORDAGE FOR MINING PURPOSES.

It is certainly very desirable, if not absolutely necessary, that every person who is intrusted with the management of a mine should possess some means of obtaining, with a degree of certainty, the quality and weight of the ropes he may have occasion to use; otherwise the lives and property intrusted to his care will be continually placed in jeopardy, and his employers be always subject to impositions respecting the charge; because, in many cases, (from the magnitude of the material,) it cannot be weighed, and therefore its weight can only be ascertained by computation; consequently, if the agent is ignorant of the matter, the right of the adventurers will solely depend on the truth of the manufacturer's calculation.

The following tables will enable the agent to find the weight of any rope, and the ensuing remarks will help his judgment respecting the quality thereof; being far the most important part of the subject.

There are various methods of discovering the quality of hemp; but as miners have seldom an opportunity of inspecting the article in this stage of preparation, we shall pass on, and show how it may be proved after its having been completely manufactured.

The first thing that demands our particular attention is, the size of the yarn or thread of which the rope is composed. There is a certain gauge or standard for this, known among ropemakers by the terms, sixteens, eighteens, twenties, &c., which means sixteen, eighteen, or twenty yarns in the strand, or third part of a rope three inches in circumference. The following table shows the weight of the different sizes of yarn before it has gone through the operation of tarring:—

SIZE.	LENGTH.	WEIGHT.
25	170 fathoms	2. 13
20		3. 8
18		3. 15
16		4. 6
15		4. 10

Now the true standard size for shroud-laid rope is *twenties*, and it is of consequence that agents should give their orders accordingly, and afterwards be assured that their ropes have really been made with yarns of this gauge.

Manufacturers have many inducements for spinning their yarn large. First, it is less expensive, for it requires no more time to spin a large yarn than to spin a small one; and sixteen or seventeen yarns (in their way) will answer the end of twenty. Secondly, in large yarns, inferior or refuse hemp can be spun, which cannot be done in yarns of a smaller size; and this consideration, if there was no other, should cause the agent to be exceedingly particular in having his rope made of standard yarns; and let it be remarked, that although a rope made of sixteens, or eighteens, will be nearly equal in weight to another made of twenties, yet by no means will it be equal in strength, even if made of the very same kind, or indeed of superior hemp. This is too plain a truth to need any illustration: for though it may be argued, that what is wanting in number is made up in bulk, yet, it will support an equal weight no more, in proportion, than a body of raw hemp, the size of a cable, will be as strong as the cable itself.

We shall now give a plain and expeditious, though infallible method, of proving the quality of hemp and yarn, viz. — From the end, or *fag* of the rope, cut several of the yarns in fathom lengths; each of these (standard size) should suspend, or bear up separately, seventy pounds' weight at the least.

Regard must next be paid to the last part of the manufacture, called the *lay*, or twist of the rope, and this should undergo a strict examination, as much depends on the skill and attention of the manufacturer in this part of the process; for it is very possible that the best materials may be used, the yarn spun of the proper size, and with the greatest care, and yet the rope be very defective, and by no means fit to be depended on. This may be easily discovered when the rope is laid in a straight line; then, if either of the strands is observed to mount or fall, that is, rise above or sink beneath the others in any degree, the rope has been *crippled*, or inevitably spoiled; for, if the former case, of one strand rising, in the event of trial, that strand will be found to bear little or none of the weight, when the other two will break; and, in the latter case, of one strand sinking, that strand will break before the other two have been brought to the strain, or have borne any considerable part of the weight.

These great defects in cordage are too often to be found, and almost as often pass unobserved; but they may always be detected by a close inspection, and thereby many of the serious injuries and fatal accidents which so often take place in mining be happily prevented.

We shall close these observations, after remarking, that as nearly all cordage used in mining is much exposed to the alternate influence of sun and moisture, which tends greatly to accelerate its decay, it ought by all means to contain a greater quantity of tar than is generally used. The common rule is one to five and a half, or one to six; but the proportion of one to four and a half, or one to five, would be much better; but we recommend this increase for standing ropes only, such as capstan-ropes, &c.; as, from the comparative infrequency of their use, and the length of time they endure, are equally liable to injury from mould and decay, as from strain or friction.

The common practice of tarring the surface of the rope, after it has been manufactured, is of very little service: the way we recommend is, by reducing the ordinary weight suspended to the lever, during the process of tarring the yarn in the manufactory, when it is drawn in a body from the heated coppers through the knipper; whereby the tar, being lodged in the internal part of the rope, cannot fail of preserving it under all circumstances. — *Bulger's Practical Miner's Guide.*

SERIOUS ACCIDENT.—On Thursday week, as William Evan, a Pembrokehire labourer, was walking up the Penydarran inclined plane, by the side of the train wagon, the wheel entangled in his trousers, and he was dragged under the carriage—his leg was broken in two places, and was amputated the same evening by Mr. Russell. — *Northyr Guardian.*







## PRICES OF SHARES—continued.

## JOINT STOCK BANKS

No. of Shares.	Amount paid.	Price.	No. of Shares.	Amount paid.	Price.
16,000 Agricultural of Ireland	7	3,000	Dev. & Can. Bg. Co.	20	36
5,000 Australasian	37	18,000	London & Western	29	342 1/2
1,500,000 Bank of Australia	864	3,000	Lancaster	20	30
10,000 Bank of Birmingham	10	25,000	Liverpool	10	22
10,000 Birmingham Bk.	3	50,000	Manchester & York Dis.	11	22
500,000 British Linen Co.	100	240	Manchester	25	22
3,000,000 Commercial	100	183	5,000,000 National Scotland	10	184
Colonial.	10	14 13 1/2	20,000 Nat. Bk. Ireland	12	164
3,000 Equitable L'n. Co.	9	10	Nor. Prov. Engrs.	25	294
2,000,000 Glasgow Union	50	65	1,000 Nor. & Cent. Bk. of En	17	17
10,000 Gloucestershire	7 1/2	15	20,001 Prov. Bk. of Irel.	25	462 7/8
5,000 Hibernia	20	2,000,000 Royal of Scotland	100	170	
6,000 Hampshire	8 1/2	9	Southern African	6	8
5,000 Huddersfield	20	4,000,000 Western of Scotl.	30	37	
10,000 Hibernian	25	20,000 Wilt. & Dorset			

## BRIDGES

BRIDGES.						
1,600	Hammersmith .. 50	23	5,000	Waterloo .....	100	34
7,231	Southw. old 63f. 2s. 8d.	44	5,000	Do. old Ann. of St.	60	18
1,700	Do. New of 74 p. ct. 50	14	5,000	Do. new do. of 71.	49	15
6,000	Vauxhall 70f. 10s. 3d.	22	6,000	Metropol. Suspend.	2	

## RAILWAYS.

WATER WORKS.			
4,800 Birmingham....	25	1,500 New Riv. London	
121 Colchester.....	100	B. W. An. ....	58
4,433 East London....	100	6,496 March & Safford	52
4,000 Glasgow.....	50	Portsea Island.....	50
4,500 Grand Junction..	41	1,427 Portland & Farigut	11
5,400 Edin. Joint Stock	25	372 Do. New.....	24
2,000 Kent.....	100	46,000 Vauxh. It S. Lon.	84
388 Liverpool Bootle	220	8,300 W. Middx Gs. 12s. 2d.	84
		1,360 York Buildings..	100

## CANALS.

ROADS.				
533 Archw. & Kent Tn.	30		492 Great Dover Str.	70
300 Barking.....	100	22½	2,303 Hightgate Arch.	306. ss.
1,000 Commercial....	100	90	11,601½ New North Rd.	Stock
9,000 Do. R. I. Dock Rg.	100	50		

102	100
	1,750

LITERARY INSTITUTIONS.			
400	Adele. Gal. of Sci.	50	55 60
1,000	Lon. with Br. Tek	78½	204
1,500	London Univer.	100	244
700	Russell .....	26½	8
	King's College..	100	30

20	300
400	3,647

MISCELLANEOUS.			
10,000 Anti Dry Rot ..	1 1/2 pm	229 S. Devon Ship Co. 50	100
10,000 Anglo Mex. Min.	10 1/4 d	10,000 Ed. & Leigh Glans	16
10,000 Australian Agric.	26 1/2 40	2,500 Essex Mar. Salt	64
1,000 Auction Mart ..	50	15,000 Gen. St. Nav. e. d.	13
8,000 Br. Rock & Pat. Sit	55	Huds. Bay St. e. d.	
British Annuity	50	2,000 Lon. Cn. Sal Rms	75
British Alkal.	17 pm	Neer Corn Exm	22
6,000 Brit Ann. Ld. Co.	13 1/4 11	N. Bruns. (Land)	25
10,000 Canada Comp.	22 37	Mexican, e. d.	5
200,000 Up. Canada Loan	4 pm	12,000 Pat. Purif. Sea Wat	2 1/4
Carron Iron Co. 250		10,000 Rio Doce .....	2
City Bonds, 4 pct. 104	103	2,754 Rever. Inter. So. 100	132 1/2
Cent. Amr. (Land) 20	15 16	2,633 Ditto New .....	55
75 Cov. Gar. Th. Rnt	500	2,000 Shotts Iron Fo.	38
300 Drury Lane Co. 500		4,000 Thames Tunnel	40
2,122 Do. Proprietors 100		10,000 Van Diemens Ld	14 1/2

149	126
20	005

PRICES OF SHARES AT LIVERPOOL.			
	£	s.	d.
Liverpool Coal Gas.	350	0	0
Liverpool New Gas & Coke Company	410	170	0 0
Liverp. New Shares, prem.	60	120	0 0
Liverp. & Har. W. Works	465	0	0
Bottle ditto	320	0	0
Exchange Buildings.	172	0	0
Liverp. & Manch. Railway	100	282	0 0
Ditto Old Quarters	25	69	0 0
Ditto New Quarters	25	69	0 0
Bolton and Leigh ditto	100	85	0 0
Ditto	25	21	5 0
Warrington & Newton do.	100	179	0 0
Kenyon and Leigh ditto	100	110	0 0
Wigan Branch ditto	100	123	0 0
Preston and Wigan North Union Line ditto	60	79	0 0
St. Helens & Runcorn Gap ditto	100	35	0 0
Leicester & Swanning, do.	50	65	0 0
Manchester, Bolton, & Bury Railway and Canal	48	82	10 0
Grand Junction ditto	50	126	0 0
Leeds and Selby.	100	82	10 0
London and Birmingham, do.	60	184	0 0
London & Glasgow ditto	5	25	0 0
Manchester and Leeds do.	6	25	0 0
North Midland ditto.	5	14	0 0
Midland ditto	5	10	0 0
Bank of Liverpool.	10	26	0 0
Bank of Manchester.	25	39	0 0
Manchester and Liverpool District Bank of Liver.	15	23	10 0
Commercial Bank of Liver.	15	10	0 0
Liverp. Marine Assur. Co.	25	15	0 0
Oldh. Gas L. & Wat. Works	10	21	10 0
Old Assurance Company	10	9	0 0
Northern & Central Bank of England	10	15	0 0
Union Bank of Liverpool.	10	18	10 0
Commercial Bank of Engl.	5	7	0 0
Transit ditto	1	3	15 0
Kellierwis	3	15	0 0
London & Bright. (Rennie's)	2	25	0 0
Ditto (Stephenson's)	5	15	0 0
Great Western Railway	20	47	10 0
Tradesman's Bank	25	4	0 0
United Trades ditto	3	5	0 0
Woodside Ferry	10	33	0 0
Edinburgh and Glasgow	2	6	0 0
Edinb. Leith, & Newhaven	3	10	0 0
London and Gravesend.	1	1	0 0
Royal Rock Ferry	5	9	0 0
Bolivar Shares	20	11	11 0
Royal Harrington Dock.	10	18	10 0
Bolivar Ship. Socy.	6	15	0 0
East India Antients.	1		
North & South Wales	2	5	5 0
British Silver Lead Comp.	2		
Wills and Dorset Bank	5	8	0 0
East of England Bank	5		
Wh. Harmony & Montague	2	2	5 0

**NCE COMPANIES.**

PRICES OF SHARES AT BIRMINGHAM.					
BANKING COMPANIES.			RAILWAYS.		
Birmingham Banking Co.	£ s.	£ s. d.	Bristol and Exeter	£ s.	£ s. d.
Bank of Birmingham	5	0 17 0	Eastern Counties	2	10 3 15 0
Birmingham Town & Dist.	10	0 15 0	Manchester & Liverpool	100	0 280 0
Commercial Bank of Eng.	5	0 12 0	Leeds and Manchester	5	0 21 0
Northern and Central	10	0 15 0	London & Bright (Sheph.)	5	0 17 0
National Provincial	25	0 30 0	Didto ditto (Rennie)	2	0 10 0
Bradley & Westhorne	5	0 10 2 6	Midland Counties	5	0 7 0
Stratford & Kidderm.	5	0 11 5	London & Greenwich	20	0 25 10 0
Wolverhampton	5	0 10 10	Manchester, South Union	2	0 4 5 0
Warwick & Leamington	5	0 10 0	North Midland	5	0 12 10 0
Warley	5	0 7 6	London & Birmingham	20	0 25 10 0
Worcester	15	0 22 0	St. George's Harbour	1	0 10 0
Wolverhampton	7	10 16 5 0			
			GAS COMPANIES.		

## PRICES OF METALS.

	£	s.	d.		£	s.	d.	
OFFER, Brit.—Cake.....	ton	12	0	IRON, Brit.—Pig. No. 1.....	ton	8	0	
Tile.....	do.	110	0	Bar ton 11 15 0 to 12 0 0				
Sheets.....	ib.	0	1	Do. Cast. in Wales 11 0 0				
Bottoms.....	do.	0	2	Bolts.....	ton	12	10	
Foreign—S. Am. (dy. 37s.				Nail Rods.....	ton	12	15	
cwt.).....	hd.	ton	95	Hoops.....	ton	14	0	
EN, Brit.—Blocks.....	cwt.	6	0	Sheets, single.....	ton	16	0	
Bars.....	do.	7	0	(Others in proportion.)				
Plates, common.....	do.	0	2	Foreign—Sweden, cr. hd. ton	15	10	0	
To best, per.....	1 X. 2 8 0. 2 12 0			for Steel, (var.				
box.....	1 X. 2 14 0. 2 16 0			Duty 30s. mks. ton	16 0 0 to 35 0 0			
masters of the above Mks. 3s. less, all				per ton. Russian com. ton	15 0 0			
others fs. less.				P. & I. ton	15 0 0			
(Others in proportion.)				C. & C. D. ton	17 10 0			
Foreign—Bancs, hd. cwt.	0	0	0	STEEL, Brit.—Bilister, (various				
duty 50s. Straits, hd. cwt.	5	15	0	qualit. ton	25 0 0 to 45 0 0			
per cwt. Bars.....	hd. cwt.	6	0	Shear do. do. ton	45 0 0			
AD, Brit.—Pig.....	ton	27	0	Cast do. do. ton	45 0 0 to 84 0 0			
Sheet.....	ton	24	10	Foreign—Sweden in kg's hd. ton	18 0 0			
Iron.....	ton	31	0	Duty 20 Do. Fargate hd. ton	19 0 0			
Red.....	ton	29	0	per cent. Milan.....	hd. ton	35	0	
White (dry).....	ton	35	0	SPELTER, For.—Cakes (dy. 2l. p.				
Do. (gr. in oil) ton	38	0	0	ton.....	hd.	ton	23	0
Litharge.....	ton	29	0	Sheets (dy. 10l. p. ton)	hd. ton.	29	0	0
Foreign—Span. (dy. 40s. per				hd. ton.	29 0 0 to 31 0 0			
ton).....	hd.	ton	26	10 0	QUICKSILVER—(dy. 1d. per lb.)			
				hd.	ton.	1d.	per lb.	0 3 6

### TIDE TABLE

	Satur.	Sunday.	Mond.	Tuesd.	Wedn.	Thurs.	Friday.
Morning		0 42	1 22	2 1	2 37	3 11	3 44
Evening	0 21	1 2	1 42	2 19	2 55	3 27	4 1

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